STATE OF ILLINOIS

ILLINOIS COMMERCE COMMISSION

Aqua Illinois, Inc.	**:**	
	:	**11-0436**
Proposed general increase in	**:**	
water and sewer rates.	**:**	

PROPOSED ORDER

DATED: January 11, 2012

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PROPOSED ORDER

By the Commission:

I. PROCEDURAL HISTORY

On April 6, 2011, Aqua Illinois Inc. ("Aqua" or "Company") filed, with the Illinois Commerce Commission ("Commission"), revised tariff sheets ("Proposed Tariffs") in which it proposed a general increase in water and sewer rates pursuant to Section 9-201 of the Public Utilities Act (the "Act"), 220 ILCS 5/9-101 et seq.

The Proposed Tariffs applicable to water service were identified as ILL. C. C. No. 49, Original Title Sheet; ILL.C. C. No. 49, Table of Contents, Original Sheet No. 1; ILL. C. C. 49, Section No. 1, Original Sheet Nos. 1-47; and ILL. C. C. No. 49, Section No. 2, Original Sheet Nos. 1-39 plus Original Information Sheet. The Proposed Tariffs would cancel ILL. C. C. No. 47, Section No. 3, Section No. 4, Section No. 5, Section No. 6, Section No. 7, Section No. 8, Section No. 9, Section No. 10, Section No. 11 & Section No. 12 in their entirety.

The Proposed Tariffs applicable to sewer service were identified as ILL. C. C. No. 50, Original Title Sheet; ILL. C. C. No. 50, Table of Contents, Original Sheet No. 1; ILL. C. C, No. 50, Section No. 1, Original Sheet Nos. 1-32; and ILL. C. C. No. 50, Section No. 2, Original Sheet Nos. 1-13. The Proposed Tariffs would cancel ILL. C. C. No. 48 in its entirety.

Simultaneous with and in purported support of its filing of the Proposed Tariffs, Aqua filed testimony, exhibits and schedules intended to meet the requirements of 83 Ill. Adm. Code 285, 286 and 287 ("Parts 285, 286 and 287").

By Commission Orders, the Proposed Tariffs were suspended, and were subsequently resuspended to and including March 2, 2011.

Petitions for leave to Intervene were filed on behalf of the People of the State of Illinois by the Attorney General of the State of Illinois ("People" or "AG"); the Citizens Utility Board ("CUB"); the Village of University Park and Viscofan USA, Inc. ("Viscofan") prior to the prehearing conference or to the date applicable to the filing of Staff and Intervenor direct testimony. The County of Lake ("Lake County") filed a petition for leave to intervene on August 25, 2011 in which it “accept[s] the record and procedural schedule established to date in this docket.” Lake County participated as and was treated as an intervenor from that point forward.

Pursuant to due notice, hearings were held in this matter before a duly authorized Administrative Law Judge of the Commission at its offices in Springfield, Illinois. Appearances were entered by respective counsel for Aqua, the Commission Staff ("Staff"), Viscofan, the AG and Lake County. Testimony and exhibits filed by Aqua, Staff, Viscofan and the AG were admitted into evidence. At the conclusion of the hearings, the record was marked "Heard and Taken."

Initial briefs (“IBs”) and reply briefs (“RBs”) were filed by Aqua, Staff, the AG and Viscofan. An IB was filed by Lake County. A draft order was filed by Aqua.

II. SERVICE AREA AND NATURE OF OPERATIONS

In its “Will County Divisions,” Aqua provides both water and sewer service to its University Park Division; and to its Willowbrook Division, which serves customers in the Willowbrook Estates Subdivision and various other subdivisions and developments.

Within its “Northern Divisions,” Aqua provides both water and sewer service in its Hawthorn Woods division which serves customers in the Village of Hawthorn Woods and elsewhere; to its Ivanhoe Division which serves customers in the Ivanhoe Country Club development west of Mundelein; and to its Candlewick Division which serves customers in the Candlewick Lakes community southwest of Poplar Grove.

In its Northern Divisions, Aqua also provides water service in its Ravenna Water Division, which provides water service for the customers located in the Ravenna and Autumn Woods developments in Long Grove; in its Fairhaven Water Division which serves customers located in the Fairhaven development in unincorporated Lake County north of Barrington; and in its Oak Run division which serves customers in communities around Spoon Lake in unincorporated Knox County north of Dahinda. Aqua also provides sewer service in its Elwood Greens division which serves customers in the Ellwood Greens subdivision in unincorporated Dekalb County southwest of Genoa.

In its Vermilion Division, Aqua provides water service to customers in certain communities in Vermilion and Champaign Counties.

Aqua’s other division, the Kankakee Division, is not part of the current rate proceeding.

Aqua identified the sources of supply for the water divisions, and the facilities used to provide water and sewer service. Aqua also described some of the projects which are being undertaken, or were recently completed, in order ensure system reliability and to achieve compliance with IEPA regulations and the Safe Water Drinking Act. (Aqua IB at 4-5)

III. TEST YEAR; REQUESTED INCREASE

"Test year" options and filing requirements are set forth in 83 Ill. Adm. Code 285, 286 and 287. In this proceeding, the Company's proposed rate increase request is based on a future, or forecasted, test year consisting of the 12 months ended December 31, 2012.

With its filing, the Company included the opinion of the London Witte Group, an independent certified public accounting firm, stating that the Company complied with the Guide for Prospective Financial Information issued by the American Institute of Certified Public Accountants, in the preparation and presentation of its projections.

No party objected to the Company's use of a 2012 Future Test Year. The Commission concludes that the use of a future test year consisting of the 12 months ended December 31, 2012 is appropriate for the purposes of this proceeding.

The rates proposed in Aqua's filing were intended to increase revenues from water customers by 23.4% and revenues from sewer customers by 21.6%.

IV. RATE BASE

When a future test is used, a utility's rate base, on which it is seeking to earn a return, consists principally of forecasted balances of the original cost of utility plant in service, net of accumulated depreciation, plus additions such as working capital and materials and supplies, less deductions to reflect other sources of funds, such as deferred taxes and contributions in aid of construction.

Schedules showing the Company's rate base for the test year ending December 31, 2012 were presented by Company and Staff witnesses.

Staff witness Bridal proposed an adjustment to reduce Forecast Plant Additions for the years ending December 21, 2011 and December 31, 2012 based on the Company's history of actual capital spending compared to planned capital spending for the years 2007, 2008, 2009, and 2010. (Staff IB at 2-3) The witness testified that on average, Aqua had less capital spending from 2007 through 2010 than was projected, and that adjusting the 2011 and 2012 forecast plant additions to reflect the Company's historical spending variance from planned capital expenditures provides a more realistic projection of the 2011 and 2012 additions to plant-in-service. (Staff Ex. 2.0 at 7-9; Staff Ex. 7.0 at 5-6)

For purposes of this proceeding, Aqua did not contest the adjustment to Forecast Plant Additions. (Aqua Ex. 10.0 at 2-3; Aqua Ex. 14-0 at 1)

The Commission finds that the Staff adjustment results in a more accurate and reliable forecast of capital expenditures for 2111 and the 2112 test year, and it should be approved.

Staff witness Ms. Burma Jones proposed an adjustment to reflect the impact on Accumulated Deferred Income Taxes ("ADIT") of the increase in the Illinois SIT rate from 7.3% to 9.5%, effective January 1, 2011. There are three parts to the adjustment: (1) an increase to ADIT for the shortfall resulting from the tax rate increase; (2) creation of a regulatory asset for the future recovery of the additional ADIT liability; and (3) amortization of the regulatory asset over the remaining life of the depreciable assets that gave rise to the ADIT. (Staff IB at 3-4)

Ms. Jones also proposed an adjustment to reflect the impact on ADIT of Illinois' allowance of 100% federal bonus depreciation in 2011, which means the Company can defer payment of state income tax on the amount of the 100% federal bonus depreciation for 2011. She said the Company's filing reflected the State's usual position regarding federal bonus depreciation, which is to disallow federal bonus depreciation in the calculation of a taxpayer's state income tax obligation. (*Id*.)

In the interest of limiting issues in this proceeding, Aqua does not contest the recommendations and adjustments regarding ADIT as proposed by Ms. Jones.

The Commission finds that these recommendations and adjustments are appropriate and they are adopted.

Upon giving effect to the determinations above, and the adjustments reflected in the Staff rebuttal schedules, the Commission finds that the rate base for the consolidated and standalone water and sewer divisions approved elsewhere in this order below are hereby approved as shown in the schedules attached to Staff's rebuttal testimony and in the Appendices attached to this Order.

V. OPERATING REVENUES, EXPENSES AND INCOME

Schedules showing operating revenues, expenses and income for the test year ending December 31, 2012 were presented by Aqua and Staff witnesses.

A. Various Staff Adjustments

Staff witnesses proposed various adjustments reducing test year operating expenses to be recovered from ratepayers.

Staff witness Ms. Jones proposed an adjustment to reduce Corporate Management Fees, which are charges the Company receives for services from its parent, Aqua America, Inc. Among other things, Aqua's projected increase for 2012 is higher than, and inconsistent with, the rate of increase projected for other expenses. (Staff Ex. 1.0 at 18; Staff Ex. 6.0 at 6)

Staff witness Mr. Bridal proposed an adjustment to remove an amount for fines and penalties from test year operating expenses. He said the Aqua operating companies did not incur fines and penalties in 2009 or 2010. (Staff Ex. 2.0 at 3-4; Staff 7.0 at 3-4)

He also proposed an adjustment to remove dues to the Chamber of Commerce, characterizing it as a promotional or goodwill practice, the cost of which should not be recovered from ratepayers.

Mr. Bridal also proposed an adjustment to remove an amount of $1,100 for "charitable contributions" from test year operating expenses. (Staff Ex. 2.0 at 5-6; Staff Ex. 7.0 at 4-5) He said this amount was given for Community and Economic Development which does not qualify as a charitable contribution under Section 9-227 of the Act.

Mr. Bridal also proposed an adjustment to remove an amount of $4,837 from industry association dues. He said this amount represents the percentage portion of dues paid to American Water Works Association that were attributable to lobbying. (Staff Ex. 2.0 at 6-7)

In the interest of limiting issues in this proceeding, Aqua does not contest the above-referenced adjustments proposed by Ms. Jones and Mr. Bridal. Having reviewed the record, the Commission finds that these adjustments are appropriate and they are adopted.

B. Incentive Compensation

Staff proposed adjustments to reduce Aqua's incentive compensation expenses, also known as its Annual Cash Incentive Plan ("ACIP"), by $150,695. Aqua disagrees with the Staff adjustment.

1. Aqua Position

Aqua states that its Annual Cash Incentive Plan has two components: (i) the Management Improvement Program and (ii) the Employee Recognition Program, which is to reward non-union employees who are not eligible for the Management Improvement Program. (Aqua Ex. 1.0 at 13, 16) Aqua witness Mr. Blanchette testified that Aqua modified its ACIP to address Staff's concerns raised in Aqua's 2010 Kankakee Rate Case ("2010 Rate Case"), Docket No. 10-0194. (*Id*. at 13; Aqua IB at 9)

Specifically, Aqua asserts, it modified the ACIP to link performance to customer benefits, without any reliance on the Company's reaching its financial objectives. (Aqua Ex. 1.0 at 13) Aqua also modified the ACIP to remove a financial trigger related to incentive compensation payments so that employees must meet specific performance objectives in order to receive full incentive compensation payments. (*Id*. at 14)

According to Aqua, it modified the ACIP directives to be primarily directed toward improving customer service, enhancing environmental compliance, controlling costs, and improving efficiencies and productivity. (*Id*. at 14; Aqua Ex. 1.5)

Aqua states that it also modified the ACIP to remove all financial, affiliate or shareholder based objectives, including the financial goal that candidates must meet before any payments will be made. (Aqua Ex. 1.0 at 14, 16; Aqua Ex. 13.0 at 2) Lastly, Aqua asserts, the ACIP was modified to allow awards for special actions, heroic deeds, or projects that positively impact the performance or image of the Company. (Aqua Ex. 1.0 at 16; Aqua Ex. 1.6)

Aqua argues that it presented unrebutted evidence showing it has a proven track record of consistent payments under its incentive compensation program to employees who participate in and meet the identified incentive compensation program objectives, averaging 93% of budgeted expenses over the past six years. (Aqua Ex. 13.0 at 2; Aqua Ex. 9.0 at 1) Accordingly, in the event the Commission determines that a disallowance is warranted related to Aqua's ACIP, which Aqua submits should not be the case, Aqua proposed that such a disallowance be no more than 7% of the budgeted test year amount.

Aqua contends that it incurs incentive compensation costs every year and, just like any other cost included in Aqua's 2012 Test Year, actual incentive compensation costs may fluctuate after the Commission enters an Order in this proceeding. (Aqua Ex. 9.0 at 1) Thus, at a minimum, Aqua argues, its incentive compensation costs should be allowed to be recovered consistent with the Company's historical experience at 93% of the budgeted test year amount. (Aqua RB at 5)

In Aqua's view, the evidence demonstrates that the costs related to the Company's ACIP are just and reasonable. Aqua contends that its modifications in response to Staff's concerns sufficiently addressed those concerns. Aqua argues that it has implemented sufficient safeguards and considerations to demonstrate the ACIP will provide tangible benefits to Aqua's customers, including improving customer service, enhancing environmental compliance, controlling costs, and improving efficiencies and productivity. In addition, Aqua asserts, it has removed all financial, affiliate, or shareholder based objections from the ACIP. Aqua finds Staff's arguments to be unpersuasive in light of Aqua's evidence.

2. Staff Position

Staff recommends disallowance of 2009 Omnibus Equity Compensation Plan ("ECP") costs of $60,879. According to Staff, The ECP is dependent upon financial goals of the Company that primarily benefit shareholders, and the Commission has a long history of disallowing such costs. (Staff IB at 5-6, Staff Ex. 1.0 at 10-13) Staff cites the Commission's Order in the rate proceedings for North Shore Gas Company and Peoples Gas, Docket Nos. 09-0166/0167 Cons., "For the most part, the Commission agrees with Staff. Incentive compensation related to financial goals, affiliate goals or shareholder goals should not be recoverable from ratepayers. The Commission has long held that costs related to incentive compensation are recoverable in rates only if the utility demonstrates tangible benefits to ratepayers." Order in Docket 09-0166/0167 Cons., January 21, 2010 at 58-59.

Staff also recommends disallowance of the increase in test year "Management Improvement and Employee Recognition Plan" ("MIP") costs for Dividend Equivalents, in the amount of $11,741. In Staff's view, Dividend Equivalents are not a form of compensation under the MIP. Rather costs for Dividend Equivalents are a form of compensation under the ECP, the costs of which Staff proposes to disallow; it follows that, if the costs of the ECP are disallowed, the costs for the Dividend Equivalents should also be disallowed. (Staff IB at 6-7)

Staff also recommends disallowance of costs, in the amount of $78,075, related to the Management Improvement and Employee Recognition Plan, also called the "Annual Cash Incentive Plan," or ACIP, by Aqua. (Staff IB at 7-9; Staff RB at 3-4)

Although Aqua modified its MIP in 2011 to remove language regarding financial goals that must be met in order for employees to receive incentive compensation payments, it "included a mechanism in the plan that achieves the same end: language was added to the plan that allows the Company to decrease a participant's award based on 'other factors' that are undefined." (Staff IB at 7) Staff states that the actual language in the MIP indicates that the "other factors" are separate and apart from a participant's individual objectives.

According to Staff, Aqua did not deny that the "other factors" could include financial goals which, if not met, would result in the Board of Directors reducing the points a participant had earned by meeting stated goals that provide a benefit to ratepayers. (Staff IB at 8) The result, Staff argues, would be the same as when there were explicit financial triggers: the amount of incentive compensation paid out would be reduced or eliminated, regardless of how well a participant met his/her stated goals. (Staff RB at 4)

Staff also contends that if the Commission decides to allow Aqua to recover incentive compensation costs from ratepayers, over Staff's objections, then only 93% of the Company's budgeted test year amount should be included in the revenue requirements. In rebuttal testimony, the Company stated that its incentive compensation awards have averaged 93% of the annual budgeted amount over the past six years. (Staff IB at 8-9)

3. Conclusion

Having reviewed the record, the Commission finds that the adjustment recommended by Staff should be adopted. Although Aqua made modifications in its MIP plan in 2011 to remove language regarding financial goals that must be met in order for employees to receive incentive compensation payments, it added language that allows Aqua to decrease a participant's award based on "other factors" that are undefined.

Staff raised the concern in its testimony that this language could allow the use of financial performance as one of the "other factors." Aqua downplays this possibility, but has not removed it by modifying the language or agreeing to do so. In conclusion, the Commission agrees with Staff that Aqua has not demonstrated tangible benefits to ratepayers.

C. Rate Case Expense

In its test year operating expenses, Aqua included a ratable, i.e. amortized, portion of rate case expense associated with the instant rate filing and proceeding.

Those projected expenses totaled $867,318. Using a four-year amortization period, one-fourth of this total was included in test year revenue requirement. A breakdown of the rate case expense by provider and cost is contained in Schedule C-10.

The Commission Staff reviewed Aqua's rate case expenses, including numerous responses by Aqua to Staff data requests ("DRs"). Those DR responses were included in the record by Aqua. (Aqua Ex. 14.3)

Commission Staff witness Ms. Jones proposed an adjustment to reduce the amount of estimated rate case expense for Guastella Associates ("Guastella"), which was hired to provide consulting services in connection with a depreciation study, because Guastella's services were not needed subsequent to the filing of direct testimony. Ms. Jones' adjustment reduces rate case expense by $46,700, or $11,675 annually, to reflect the actual expense incurred. (Staff IB at 4-5; Staff Ex. 6.0 at 6-7) Aqua does not contest this adjustment, which lowers rate case expense to $820,618.

As noted by Staff, Section 9-229 of the Act provides, in part, "The Commission shall specifically assess the justness and reasonableness of any amount expended by a public utility to compensate attorneys or technical experts to prepare and litigate a general rate case filing." Staff recommends that the Commission make the following finding in its final order, "The Commission finds that the amounts of compensation for attorneys and technical experts to prepare and litigate this proceeding, as adjusted by Staff, are just and reasonable pursuant to Section 9-229 of the Public Utilities Act (220 ILCS 5/9-229)." (Staff IB at 4) No other party, except Aqua, offered testimony or argument on this issue.

As recommended by Staff, the Commission finds that the amounts of compensation for attorneys and technical experts to prepare and litigate this proceeding, as adjusted by Staff, are just and reasonable pursuant to Section 9-229 of the Act.

In making this assessment, the Commission observes the work performed for Aqua by the attorneys and technical experts was reasonably necessary to prepare and litigate the proceeding. There were multiple parties, and numerous issues which were diverse in nature. Many of these ratemaking issues were complex, and were addressed by various parties through their respective expert witnesses. Such issues and areas included, among others, cost of capital, cost of service and rate design, depreciation studies, and an independent accountant review. Aqua, as the party with the burden of proof, and the party with the obligation to meet standard filing requirement under Part 285, properly relied on attorneys and technical experts to analyze these areas.

Aqua also made reasonable efforts to control the costs of those services from professional service providers. As described in the DR responses, Aqua selected providers based upon its review of bids and proposals received in response to requests for proposals. The DR responses also contained copies of invoices which identified the time spent and described the work performed. (e.g. see Aqua Ex. 14.3 at 284) As contemplated in the Commission's Order in Docket No. 06-0285, Aqua also included numerous water and sewer divisions in the same rate filing, in part to save rate case costs compared to making multiple rate filings.

D. Depreciation Rates

Aqua witness John F. Guastella, Sr. performed a depreciation analysis and proposed depreciation rates for the Aqua water and sewer divisions. (Aqua Ex. 7.0) Aqua's proposed depreciation rates are identified on Aqua Revised Exhibit 7.2.

Staff Witness William R. Johnson examined the Company's proposed depreciation analysis and stated that he had no objection to the Company's proposed depreciation rates. (Staff IB at 9, Staff Ex. 5.0 at 10) Mr. Johnson indicated that the proposed average service lives, net salvage, and depreciation rates were approved by the Commission in Aqua's most recent rate case, Docket Nos. 07-0620/07-0621/08-0067 (consolidated). Additionally, Mr. Johnson found that the proposed average service lives and depreciation rates were within the comparable range of average service lives and depreciation rates outlined in the Company's comparative range of utilities. Staff also had no objection to the use by Aqua of similar depreciation rates across all of its divisions, pointing out that Illinois-American Water Company and Utilities, Inc. utilize similar deprecation rates across divisions or districts. (Staff Ex. 5.0 at 10)

Staff also recommended that the Company maintain in the necessary information so that a comprehensive depreciation study utilizing Company specific data can be performed in the future. (*Id*. at 11)

Having reviewed the record, the Commission finds that the depreciation rates and depreciation expense proposed by Aqua are reasonable and should be approved. The Commission also finds that the other recommendations made by Mr. Johnson, as identified above, are appropriate and they are adopted.

E. Conclusion

Upon giving effect to the determinations made above, and elsewhere in this order, the Commission finds that the operating income statements for the consolidated and standalone water and sewer divisions are hereby approved as shown in the Appendices hereto.

VI. CAPITAL STRUCTURE AND RATE OF RETURN

A. Overview

A company utilizes various types of investor-supplied capital to purchase assets and operate a business. Utilities typically rely upon long-term debt and common equity, and in some instances preferred stock and short-term debt, to purchase assets and fund operations. The costs of different types of investor-supplied capital vary depending upon a multitude of factors, including the risk associated with the investment. As a result, the proportion of the different types of capital, also known as the capital structure, when combined with the costs of each different type of capital affects the overall or weighted average cost of capital, which is the rate of return ("ROR") a utility is authorized to earn on its net original cost rate base.

The Commission relies on the cost of capital standard to determine a fair ROR. This cost, which can be determined from the overall ROR or weighted average cost of capital, should produce sufficient earnings and cash flow when applied to the respective company‘s rate base at book value to enable a company to maintain the financial integrity of its existing invested capital, maintain its creditworthiness, attract sufficient capital on competitive terms to continue to provide a source of funds for continued investment, and enable a company to continue to meet the needs of its customers.

These standards are effectively mandated by the landmark U.S. Supreme Court decisions *Bluefield Water Works & Improvement Co. v. Public Service Commission of West Virginia*, 262 U.S. 679 (1923) ("*Bluefield*") and *Federal Power Commission v. Hope Natural Gas Company*, 320 U.S. 391 (1944) ("*Hope*"). Meeting these requirements is necessary in order for a company to effectively meet the utility services requirements of its customers and provide an adequate and reasonable return to its investors, debt holders and equity holders, alike.

B. Capital Structure and Cost of Debt

The Company proposed using a forecasted average 2012 capital structure that contains 0.69% short-term debt, 45.77% long-term debt, 0.24% preferred stock, and 53.31% common equity, which Staff recommended that the Commission accept. According to Staff, Aqua’s capital structure is commensurate with a strong degree, but not excessive degree, of financial strength. (Staff IB at 12)

The Commission finds that the Aqua's proposed capital structure is reasonable for rate-making purposes.

Staff states that Aqua's cost of short-term debt is 2.00%, that its average embedded cost of long-term debt for the average 2012 measurement period equals 6.71%, and that its average cost of preferred stock equals 5.47%. (Staff IB at 12-13) For purposes of this proceeding, Aqua does not contest Staff's proposed cost rates. (Aqua IB at 13)

The Commission finds that the cost rates for short-term debt, long-term debt, and preferred stock proposed by Staff are reasonable and should be used for setting rates in this proceeding.

C. Cost of Common Equity

Evidence on the cost of equity was provided by witnesses for Aqua and Staff. Staff witness Ms. Kight-Garlisch measured the investor-required rate of return on common equity for Aqua using a discounted cash flow ("DCF") method and a risk premium model identified as a capital asset pricing model ("CAPM"). Since Aqua does not have market-traded common stock, DCF and risk premium models cannot be applied directly to Aqua; the witness applied both models to "comparable" samples of water utility companies ("Water Sample") and public utility companies ("Utility Sample"). Ms. Kight-Garlisch also provided an updated analysis. Staff recommends a return on equity ("ROE") of 9.43%.

Aqua witness Mr. Walker's ROE calculation also employed DCF and CAPM models, as well as an additional risk premium model. Mr. Walker compared Aqua, a non-publicly traded company, against "comparable" groups of water utilities and gas utilities to estimate the common equity cost rate. Aqua recommends an ROE of 10.90%.

The simplified DCF model may be expressed as follows:

$k = d/P + g$

where: k is the investor required rate of return, d is the current dividend, P is the market price of common stock and g is the expected dividend growth rate.

Under the CAPM, the relationship between risk and return may be mathematically depicted as:

$$R_j = R_f + B_j \times (R_m – R_f)$$

where: R_j = the required rate of return for security j; R_f = the risk free rate; R_m = the expected rate of return for the market portfolio; and B_j = the measure of market risk for security j.

1. Aqua's Position

a. Initial Brief

Aqua believes its proposed return on common equity ("ROE") of 10.9% is reasonable and supported by the evidentiary record, which includes the testimony of its expert witness, who provided a detailed quantitative analysis using Commission-recognized models, as well as financial market information from two comparable groups of publicly traded companies. Aqua urges the Commission to adopt the Company's proposed ROE, which, Aqua argues, appropriately reflects a fair and reasonable return sufficient to allow Aqua to attract equity capital. (Aqua IB at 14)

In calculating Aqua's proposed ROE, Aqua witness Walker employed the Discounted Cash Flow ("DCF"), Capital Asset Pricing Model ("CAPM") and Risk Premium ("RP") models. Aqua states that because the price of common stock reflects a number of valuation models, it is appropriate to estimate the market-required common equity cost rate by applying a broad range of analytical models. Mr. Walker concluded that the current range of common equity cost for Aqua is 11.2% (DCF), 11.2% (CAPM), and 10.9% (RP). Aqua asserts that its proposed ROE is reasonable as measured against Value Line's projected returns on average book common equity for comparable utilities for the period 2013-2015, which range from 11.0% to 12.0%. (Aqua IB at 14-15)

There is no market data for Aqua's equity given that Aqua's shares of common stock are not publicly traded. Aqua indicates that Mr. Walker used two comparable groups of publicly traded companies, a comparable group of water utilities and a comparable group of gas utilities, to estimate the common equity cost rate. Since there are no perfectly comparable companies to Aqua, Mr. Walker concluded that it is reasonable to determine the market-required cost rate for a comparable group of utility companies and adjust, to the extent necessary, for investment risk differences between Aqua and the comparable groups.

Based upon the recommended capital structure ratios of about 53% common equity, financial analysis, and risk analysis, Mr. Walker concluded that Aqua is exposed to similar investment risk as the comparable group of water utilities. Aqua claims its investment risk is tempered by the recommended capital structure ratios to include 53% common equity, which is slightly higher than ratios employed by other investor-owned water companies. Aqua states that Mr. Walker's recommended ROE is based upon the comparable group of water utilities common equity cost rate of 11.1%. (Aqua IB at 15)

In Aqua's view, Staff's proposed ROE of 9.43% is based on an analysis that is unreasonable, contrary to prior Staff positions and recent Commission Orders, and should be rejected. Aqua says it is based on giving two-thirds weight to the lower end of Staff witness Kight-Garlisch's cost rate range, 9.09%, or Staff's water sample, and giving one-third weight to the upper end of her cost rate range, 10.12%, or Staff's utility sample. Aqua believes the Commission should reject Staff witness Kight-Garlisch's ROE proposal because it is fundamentally flawed. Aqua also contends that it represents an unexplained and unsubstantiated dramatic departure from historical, Commission-approved ROEs of 10.40% to 10.71% for other water and sewer utilities. (Aqua IB at 15-16, RB at 7-8)

Aqua claims that in this proceeding, Staff abandons the weighting of a Utility Group's ROE from the past rate cases. Aqua also asserts that Staff makes a dramatic change in the DCF model utilized between direct and rebuttal testimony. According to Aqua, Staff's analysis places undue reliance on only Zacks projected growth rates and undue reliance on short term recent economic conditions in determining a long term sustainable growth of the economy. Aqua also complains that Staff places undue reliance on "spot date" interest rates and dividend yields. Aqua contends that Staff places sole reliance on one model to estimate the cost of equity. Aqua also claims that Staff's analysis clearly fails a comparison test of other Commission-authorized returns. (Aqua IB at 16, RB at 8 and 10-11, citing Docket No. 10-0467)

In Aqua's view, Staff's assumed growth rate is at odds with the fact that Staff's water sample group has been growing by more than two-times the rate of the growth of the economy for the past 30 years. Aqua says Staff's water sample group will prospectively grow at a higher rate than the economy as long as mandated capital improvements are required and consolidation and acquisitions occur. Aqua claims Staff fails to acknowledge that Aqua has, historically, significantly under-earned compared to its authorized ROE, which Aqua says suggests the Company will only earn a ROE of 6.63% if authorized a 9.43% ROE. (Aqua IB at 16-17)

Aqua argues that Staff's proposal conflicts with the precepts of a fair rate of return, including the capital attraction standard, and the financial integrity standard. Aqua asserts that Staff's position fails to consider the importance to the Company's customers and the State of Illinois of Aqua's investment of $165.4 million in the State's economy since 2000, and the disincentives resulting from being authorized a ROE of only 9.43%. Aqua also claims that Staff's position fails to recognize the likely result of financial capital fleeing the State as a direct reaction to the Company being authorized a ROE of only 9.43%. In Aqua's view, Staff's position disregards the importance of regulatory stability, the importance of reasonable ROEs and other regulatory signals that are analyzed by the entities responsible for providing capital for future investments, investment advisory firms, credit rating agencies, and investors. (Aqua IB at 17)

Aqua argues that Staff flip-flopped DCF methodologies between direct and rebuttal testimony in an effort to rehabilitate support for its unreasonably low ROE position. Aqua claims any endorsement by the Commission of Staff's flip-flopping methodologies to support lower ROE recommendations would run counter to a consistent message of regulatory certainty. Aqua states that Ms. Kight-Garlisch changed from using a single-stage or constant growth DCF in her direct testimony to a multi-stage DCF in her rebuttal testimony. Aqua contends that Ms. Kight-Garlisch provides no basis to support this drastic change in methodology. While she claimed she switched DCF methodologies because she believed the updated growth rates used in her DCF were no longer sustainable, Aqua believes that claim is based on nothing more than speculation as Ms. Kight-Garlisch did not provide any proof that investors believe the updated published growth rates contained in her rebuttal testimony are not sustainable.

Aqua also asserts that the change in DCF methodology actually undermines Staff's approach to the ROE calculation. While Aqua concedes that whether a constant growth DCF or a multi-stage DCF is more appropriate is an open question, Aqua claims there is no question that if one finds that growth rates have increased by 230 basis points to 260 basis points, as Ms. Kight-Garlisch has done in her rebuttal testimony, then equity cost rates must increase as well. Aqua says Staff's rebuttal position fails to reflect this reality. (Aqua IB at 17-18)

According to Aqua, Staff also fails to explain why it abandons the sample group weightings it found reasonable just last year in Aqua's 2010 rate case. In Aqua's view, Staff's unexplained departure from a sample group weighting methodology it accepted just a year ago renders the Commission's notions of regulatory certainty meaningless. (Aqua IB at 18, citing Docket Nos. 07-0241/07-0242 Cons., Order at 16)

Aqua claims that Staff's proposed ROE represents a significant and unreasonable departure from the ROEs that the Commission has recently approved for water utility rate cases. Aqua says less than one year ago, Staff supported an ROE for Aqua's Kankakee Division of 10.03%, which the Commission approved in Docket No. 10-0194. Aqua states that Staff seeks an ROE that is 60 basis points lower for the same utility, while offering no reasonable basis for such a dramatic departure. (Aqua IB at 18)

b. Reply Brief

Aqua claims that adopting Staff's proposed ROE will have a significant negative impact on Aqua and its customers. Aqua says it would place Aqua at a competitive disadvantage in the capital markets, making it more difficult and costly to obtain the capital necessary to finance future infrastructure improvements. If Aqua is unable to compete to obtain capital at competitive rates, or unable to obtain capital through the market, Aqua claims its ability to continue to offer reliable service will be put at risk. In Aqua's view, this result will not benefit customers or Aqua's regional economy. (Aqua RB at 13)

According to Aqua, Staff fails to address Aqua's history of under-earning its authorized ROE, which, combined with a low authorized rate of return such as that advocated by Staff, will significantly impact Aqua's ability to attract capital and maintain its credit. Aqua states that the *Hope* and *Bluefield* decisions establish that utilities are entitled to the opportunity to earn a fair return on their investment that is commensurate with the returns earned by other firms of comparable risk. Aqua says it has experienced the lowest ROE when compared to the companies in Staff's sample groups over the last several years. Aqua argues that if two identically risky companies were authorized the same ROE but one operated in a regulatory environment where the likelihood of under-earning is significant, then that company would find it harder to attract capital as compared to the entity with less regulatory lag and attrition. Aqua believes the Commission should consider the likelihood of under-earning when determining Aqua's cost of capital. (Aqua RB at 13-14)

Aqua believes consideration of recent Commission-authorized ROEs for other water utilities is a means of meeting the comparable standard, a precept of a fair rate of return and, ultimately, provides a test to measure the reasonableness of result. Aqua suggests consideration here of other utilities' authorized ROEs is further buttressed by the fact that Wall Street and major credit rating agencies believe regulation and an adequate level of authorized ROE is critical to a company's ability to attract capital. (Aqua RB at 14)

According to Aqua, adoption of Staff's proposed ROE would represent a departure from prior rulings without any rational support, which, in turn, would inject regulatory uncertainty into the marketplace. Aqua believes that because financial capital is fluid and can flow from one company to another and from one region to another, a company can lose their investors, as well as make seemingly unrelated companies lose their investors, when there has been no real change in circumstances, yet a decision breaks from past rulings. In Aqua's view, the Commission must be cognizant of the results that may flow from approval of Staff's unreasonably low ROE in this proceeding. (Aqua RB at 15)

Aqua contends that Staff's proposal disregards recent Commission decisions, thereby upending traditional notions of regulatory certainty. Aqua says Staff's water group DCF common equity cost rate estimate is 235 basis points below the Commission's average authorized return on equity for other water and sewer utilities over the last 30 months and is 204 basis points below the Commission's average authorized return on equity for other water and sewer utilities for the year 2010. According to Aqua, the Commission has historically approved ROEs of 10.40% to 10.71% for other water and sewer utilities. Aqua complains that Staff offers no basis to abandon the use of sample groups and weightings of their cost rates that the Commission historically has employed for water and sewer utilities. Aqua believes the disregard for regulatory certainty that is evident in Staff's proposed ROE makes it virtually impossible for a company like Aqua to properly plan for future investments in its infrastructure and discourages Aqua from acquiring troubled systems to support the Commission's goals of reducing the number of small utilities. (Aqua IB at 18-19, RB at 14-15)

In its reply brief, Aqua states that Staff has apparently broken from its own ROE rebuttal testimony in this proceeding, asserting that other than one non-substantive citation, Staff's initial brief is completely devoid of any reference to the rebuttal testimony of Ms. Kight-Garlisch, in which she updated her common equity cost estimates, changed the companies contained in her sample groups, and changed her DCF methodology. Aqua claims Staff's unexplained abandonment of its rebuttal testimony appears to be an effort to rehabilitate support for its unreasonably low ROE position; however, Aqua says Staff's reversion to its direct testimony only serves to underscore the unreasonableness of its shifting position in this proceeding. (Aqua RB at 7)

Aqua complains that Staff switched to a single-stage or constant growth DCF in this proceeding even though Staff has used a multi-stage DCF model in numerous past proceedings, including the 2010 rate case. Aqua asserts that the Commission's Financial Analysis Division uses a multi-stage growth or three-stage growth model in most instances. Aqua says Staff's justification for using a single-stage DCF in this proceeding is that the near term growth rate estimates fall within the range of 4.50% to 5.40% for expected long-term overall economic growth. According to Aqua, Staff's assumed range for long-term economic growth is not correct. Aqua contends investors believe the long-term growth of the economy is between 6.08% and 6.34%. Citing the Commission Order in Docket No. 10-0467, Aqua says the Commission recently rejected the methodology utilized by Staff in estimating the expected long-term overall rate of growth for the economy. (Aqua RB at 9-10)

Aqua states that according to a March 2011 rate case histories report published by the Commission's Financial Analysis Division, since 1975, the Commission only has authorized one return on common equity lower than Staff's single-stage DCF common equity cost rate recommendation of 8.36% recommended by Ms. Kight-Garlisch for the Water Group. Aqua says Nordic Park Water in Docket No. 95-SF was authorized a ROE of 5.63% and an overall rate of return ("ROR") of 9.71% in November 1996. According to Aqua, even though Nordic Park Water was authorized a ROE lower than Staff's recommendation for Aqua, Nordic Park Water was authorized an overall ROR that was higher than the ROE Staff recommends here. Aqua adds that Staff's DCF-based common equity cost rate estimate is 235 basis points below the Commission's 10.71% average authorized return on equity for other water and sewer utilities over the last 30 months and is 204 basis points below the Commission's 10.40% average authorized return on equity for other water and sewer utilities for the year 2010. (Aqua RB at 10)

Aqua argues that Staff inappropriately used a spot date of July 6, 2011 as part of its DCF analysis. According to Aqua, the conditions of the financial markets changed a great deal after the date selected by Ms. Kight-Garlisch. Aqua says Staff's Utility Group experienced an average decline in stock price from July 6 to August 18 of 6.2% and Staff's Water Group experienced an average decline of 3.9%. Aqua claims these declines in stock prices produce increases in dividend yield and an increase in common equity cost rate, all other things being equal. Aqua claims the rapid decline in stock prices reflects the extraordinary chaos that has existed in the financial markets since late 2008. Aqua avers that when there is a crisis in the markets, market participants usually sell off and move their money to a safer place; fleeing from illiquid, low quality investments to liquid, high quality investments. Aqua says this flight to quality reflects a collapse of confidence in the financial system and is most evident in short-term interest rates and Treasury bond yields, both of which are used by the Federal Reserve to stabilize the capital markets.

For the years 2011-2013, Aqua claims the capital markets are and will continue to be affected by the upcoming large real estate refinancings, the unprecedented Treasury financings, the downgrading of U.S. credit, and large federal government budget deficits. Aqua further asserts that extremely high debt levels in certain European countries could trigger a wave of national defaults, undermining a revival in the credit markets. Aqua believes the results of upcoming real estate refinancings, Treasury financings, and sovereign debt defaults will have an impact on Aqua's cost of capital. Aqua claims the spot dividend yields on July 6, 2011 utilized by Staff were generally the lowest yields the Water Group and the Utility Group have had over the last 12 months. (Aqua RB at 11-12)

In response to the arguments in the AG's initial brief, Aqua claims that because the AG did not provide any witness to testify about the issue, the AG is left to argue in favor of Staff's proposed ROE with empty criticisms of Aqua witness Walker's testimony. The AG first argues that Mr. Walker's testimony should be disregarded because he gave similar testimony in the 2010 Rate Case. Aqua contends that while it is true that Mr. Walker's testimony in both cases is similar, this underscores the consistency in his position against Staff's unreasonably low ROE recommendations in both cases. Aqua notes that in the 2010 Rate Case, Staff originally recommended a 9.61% ROE, but the Commission ultimately approved 10.03%. Aqua states that here, Staff recommends 9.43%, which is 60 basis points less than what it stipulated to and the Commission authorized in the 2010 Rate Case. (Aqua RB at 15-16)

According to Aqua, the AG also argues that Mr. Walker's claim that Aqua will be unable to access capital if the Commission authorizes an unreasonably low ROE is undermined by the investment and dividend performance of Aqua America, the parent company of Aqua. Aqua says Staff made a similar argument in its "apparently abandoned" ROE rebuttal testimony that access to common equity capital is based upon the resources of Aqua's parent company, Aqua America. Aqua says this argument should be rejected for numerous reasons. Aqua argues that of the $327 million invested in capital by Aqua America in 2010 only $13-15 million was made by Aqua Illinois. Aqua contends that while the dividends paid by Aqua America may have increased in 2010, there is no evidence that the dividends have anything to do with Aqua Illinois. (Aqua RB at 16)

Aqua argues that the capital attraction standard, a precept of a fair rate of return, requires that the entity, Aqua, be able to attract capital at all times. Aqua also says the financial integrity standard, another precept of a fair rate of return, requires the return assures confidence in the financial soundness of the Aqua, not its parent company. Aqua claims a sole shareholder like Aqua America prefers that a utility subsidiary exhibit the ability to attract the capital it requires as a prerequisite to the initiation to warrant new common equity investment. According to Aqua, Aqua America is dedicated to providing the best possible water service at a reasonable cost consistent with adequate compensation for investors. Aqua says the ability to attract needed capital is dependent upon consistently achieving adequate earnings, which result from providing exceptional quality water and service for customers through the state operating companies. Aqua also believes it is not reasonable to compare parent company data set forth in Aqua America's 2010 Annual Report. (Aqua RB at 16-17)

Aqua claims that while it presented evidence supporting a higher ROE, Aqua capped its ROE request at 10.9% and asks that the Commission adopt that figure as supported by the evidence. Aqua believes the Commission should adopt Aqua's proposed ROE, which it believes appropriately reflects a fair and reasonable return sufficient to allow Aqua to attract equity capital. (Aqua RB at 17)

Aqua disputes Staff argument that Aqua's use of historical data is problematic. Aqua claims historical data is commonly used in making or formatting investment decisions. Aqua also insists the use of a size premium was appropriate, contrary to Staff's arguments in its initial brief. Aqua maintains that the cost to issue long term debt is inversely related to the size of a debt offering; that is, the smaller the debt offering, the higher the issuance expenses. Aqua claims that since issuance expenses are included as part of the cost of debt, a company's small size increases its cost of debt. Aqua says a company's size affects both the interest expense (yield or coupon) and the issuance expenses required to issue debt, as well as the terms of the issuance, which are usually more onerous for a smaller issue.

Aqua also maintains that a leverage adjustment should be used. According to Aqua, given that capital structure and firm value are related, a leverage adjustment is required when a cost of common equity model is based on market value and if its results are then applied to book value. To be consistent with financial theory, Aqua claims Staff's ROE should be adjusted upwards by 55 basis points. (Aqua RB at 17-18)

Aqua believes that at a minimum, the Commission should determine that Aqua's ROE is no lower than 9.77%. Aqua argues that while the evidence shows that Aqua's ROE should be even higher, the 9.77% figure represents the lowest end of the range for a reasonable ROE. Aqua says this result adopts Staff's overall approach as it is based on Staff's cost of common equity estimate contained in Ms. Kight-Garlisch's direct testimony, but adjusts the weighting of the sample groups consistent with what both Staff and Aqua determined was reasonable in the 2010 Rate Case, and which the Commission approved. Aqua claims that because Staff offers no reasonable explanation why it fails to employ such a weighting in this proceeding, the Commission should adopt no lower than a 9.77% ROE for Aqua. Aqua says that even using the weighting from Ms. Kight-Garlisch's direct testimony in an analysis with a constant growth DCF, as Staff advocates for in its IB, indicates an ROE of 10.05%. (Aqua RB at 18-19)

2. Staff's Position

a. Direct Testimony

Staff witness Ms. Kight-Garlisch estimated the investor-required rate of return on common equity to be 9.43% for Aqua. In her direct testimony, Ms. Kight-Garlisch measured the investor-required rate of return on common equity with the constant growth DCF and CAPM analyses. She applied those models to a sample of water companies ("Water Sample") and utility companies ("Utility Sample"). (Staff IB at 13)

According to Staff, the DCF methodology requires a growth rate that reflects the expectations of investors. Staff argues that a non-constant growth DCF ("NCDCF") model is appropriate when the growth rate estimates are not sustainable over the long-term. Staff states that a NCDCF model employs more than one growth rate estimate, including a near-term growth rate covering the first five years and a sustainable growth rate into perpetuity. Staff adds that a single-stage, constant growth DCF model employs a single growth rate estimate, which is assumed to be sustainable to infinity. Staff contends that the cost of common equity calculation derived from a constant growth estimate DCF is correct only if the near-term growth rate forecast for the sample as a group is expected to approximate its average long-term dividend growth. Ms. Kight-Garlisch concluded that the estimated average 3-5 year growth rate of 4.62% for her Water Sample and 4.88% for her Utility Sample are sustainable over the long-term. Therefore, in here direct testimony, she implemented a single-stage, constant growth model. Ms. Kight-Garlisch used the Zacks growth rate estimates as of July 6, 2011. (Staff IB at 13-14)

Staff's growth rate estimates were combined with the closing stock prices and dividend data as of July 6, 2011. Based on the growth rate, stock price, and dividend data, Ms. Kight-Garlisch's DCF estimates of the cost of common equity were 8.36% for the Water Sample and 9.65% for Utility Sample. (Staff IB at 14)

Ms. Kight-Garlisch used a one-factor risk premium model, the CAPM, to estimate the cost of common equity. In the CAPM, the risk factor is market risk, which cannot be eliminated through portfolio diversification. (Staff IB at 14)

Staff says the CAPM requires the estimation of three parameters: beta, the risk-free rate, and the required rate of return on the market. For the beta parameter, Ms. Kight-Garlisch combined adjusted betas from Value Line, Zacks, and a regression analysis. Staff states that the average Value Line, Zacks, and regression beta estimates were 0.68, 0.60, and 0.57, respectively for the Water Sample. Staff states that the average Value Line, Zacks, and regression beta estimates were 0.73, 0.74, and 0.69, respectively for the Utility Sample. (Staff IB at 15)

According to Staff, the Value Line regression employs 259 weekly observations of stock return data regressed against the New York Stock Exchange ("NYSE") Composite Index. Staff says both the regression beta and Zacks betas employ 60 monthly observations; however, while Zacks betas regress stock returns against the S&P 500 Index, the regression beta regresses stock returns against the NYSE Index. Since the Zacks beta estimate and the regression beta estimate are calculated using monthly data rather than weekly data (as Value Line uses), Ms. Kight-Garlisch averaged the Zacks and regression results to avoid over-weighting monthly return betas. She then averaged that result with the Value Line beta, which produced a beta for the Water Sample of 0.64 and for the Utility Sample of 0.73. (Staff IB at 15)

For the risk-free rate parameter, Ms. Kight-Garlisch considered the 0.01% yield on four-week U.S. Treasury bills and the 4.40% yield on thirty-year U.S. Treasury bonds. Both estimates were measured as of July 6, 2011. Staff states that forecasts of long-term inflation and the real risk-free rate imply that the long-term risk-free rate is between 4.5% and 5.4%. Thus, Ms. Kight-Garlisch concluded that the U.S. Treasury bond yield is currently the superior proxy for the long-term risk-free rate. Finally, for the expected rate of return on the market parameter, Ms. Kight-Garlisch conducted a DCF analysis on the firms composing the S&P 500 Index. That analysis estimated that the expected rate of return on the market equals 12.86%. Inputting those three parameters into the CAPM, Ms. Kight-Garlisch calculated a cost of common equity estimate of 9.81% for the Water Sample and 10.58% for the Utility Sample. (Staff IB at 15-16)

Staff states that Ms. Kight-Garlisch estimated the investor required rate of return on common equity for the two Samples from the results of the DCF and risk premium analyses for the Samples. The average investor required rate of return on common equity for her Water Sample, 9.09%, is based on the average of the DCF derived results (8.36%) and the risk premium derived results (9.81%). The average investor required rate of return on common equity for her Utility Sample, 10.12%, is based on the average DCF derived results (9.65%) and the risk premium derived results (10.58%). (Staff IB at 16)

According to Staff, Ms. Kight-Garlisch next compared the risk of the two Samples to Aqua to determine the relative weighting that should be applied to each. Staff says the average S&P credit rating for the companies in her Water Sample is A, while the average S&P credit rating for the companies in her Utility Sample is BBB. Staff asserts that this indicates that the Water Sample is less risky than the Utility Sample. (Staff IB at 16)

Staff states that because S&P does not present a credit rating specifically for Aqua, Ms. Kight-Garlisch estimated the credit rating that Aqua’s financial ratios imply using the S&P risk matrix. Staff reports that S&P publishes a business risk and financial risk matrix to evaluate a company’s total risk. (Staff IB at 16-17)

Staff says the Water Sample and the Utility Sample both have “Excellent” business risk profiles. Staff also indicates that all water companies rated by S&P have an “Excellent” business risk profile. Therefore, Ms. Kight-Garlisch assumed an “Excellent” business risk profile for both Aqua and Aqua America for evaluating their overall risk. Staff says the financial risk matrix implies a credit rating of A- for Aqua, A-

/BBB for Aqua America, and BBB for both the Water Sample and the Utility Sample. (Staff IB at 17)

According to Staff, the average S&P credit rating for the Utility Samples is BBB, which is consistent with that implied by the matrix. The average S&P credit rating for the Water Sample is A, which Staff claims is higher than its financial ratios imply. Staff reports that although S&P does not present a credit rating specifically for Aqua or its parent Aqua America, Inc., Aqua's affiliate for which S&P does present a credit rating, Aqua Pennsylvania, Inc, Aqua's regulated sister subsidiary is rated A+. Staff asserts that the rating for Aqua Pennsylvania reflects Aqua America's consolidated credit strength. According to Staff, Aqua has similar if not better cash flow ratios and lower debt ratios than Aqua America and both Samples. Thus, Ms. Kight-Garlisch concluded the Company's implied credit rating is A+, the same as Aqua Pennsylvania. Staff contends that S&P implied credit ratings for Aqua's suggest that Aqua may be slightly less risky than the Water Sample, and less risky than the Utility Sample. (Staff IB at 17)

Ms. Kight-Garlisch also performed a principal components analysis for Aqua and her samples, using the same approach she used to select her Utility Sample. She compared four principal components factor scores for Aqua, her Water Sample, and her Utility Sample to assess their relative risk. Staff states that each utility's principal components factor score represents the number of standard deviations (σ) that utility falls from the industry average in terms of that specific risk factor. The standard deviation is a statistic that explains how tightly the observations are clustered around the mean in a set of data. According to Staff, under a normal distribution, approximately 68% of all observations will fall within one standard deviation of the average; approximately 95% will fall within two standard deviations. (Staff IB at 17-18)

According to Staff, both Ms. Kight-Garlisch's review of credit ratings and her principal components analysis suggest that the Utility Sample is more risky than either Aqua or the Water Sample. Staff argues that while the S&P implied credit rating and financial ratios suggest that Aqua may be slightly less risky than the Water Sample, the principal components scores suggest that it may be more risky. Given the split results of those risk measures, the minor difference in risk each suggests, and the inexact nature of risk assessment,

Ms. Kight-Garlisch concluded that Aqua is closer in risk to the Water Sample than the Utility Sample. Staff asserts, however that the small size of the Water Sample increases measurement error. Due to the increased measurement error for the Water Sample, Staff Ms. Kight-Garlisch applied two-thirds weight to the Water Sample average investor required rate of return on common equity, and one-third weight to the Utility Sample average investor required rate of return on common equity instead of relying solely on the Water Sample. Ms. Kight-Garlisch's recommended cost of equity for Aqua, 9.43%, is the result of that calculation. (Staff IB at 19-20)

Ms. Kight-Garlisch also responded to “the most significant flaws" in Mr. Walker's analysis of Aqua's cost of common equity: (1) use of historical data in each of his models; (2) the analyst growth rates he applied in his DCF analysis are unsustainably high, based on current expectations of overall economic growth; (3) his CAPM analysis suffers from a number of errors, the most critical of which are his flawed derivation of the overall market return ("Rm") and an inappropriate size premium and missing data which undermines the integrity of his beta estimate for the Water Group; and (4) the leverage adjustment he adds to the results of each of his DCF, CAPM and Risk Premium models is inappropriate. (Staff IB at 20; Staff Ex. 3.0 at 35)

Staff complains that Mr. Walker used historical data to estimate the current dividend yield in his DCF analysis, the terminal growth rate in his three-stage DCF analysis, and the equity risk premium in his RPM analysis and in his CAPM analysis. According to Staff, historical data favors outdated information that the market no longer considers relevant over the most recently available information. Staff also believes that historical data reflects conditions that may not continue in the future. Staff asserts that even if securities data were mean reverting, there is no method for determining the true value of that mean. Staff also claims that sample means, which depend upon the measurement period used, are substituted. In Staff's view, any measurement period chosen is arbitrary, rendering the results uninformative. (Staff IB at 21)

Staff argues that Mr. Walker's near-term growth rates are not sustainable over the long term. Staff claims that the expectations of long-term growth in the overall economy ranges from 4.5% to 5.4%, with a midpoint of 4.9%. In contrast, Staff says the average near-term growth rate for Mr. Walker's Water Group is 47% greater than the midpoint of the expected long-term growth in the overall economy, at 7.2%, and the growth rate Mr. Walker utilized for his Gas Group is 20% greater, at 5.9%. Staff contends that since utilities are generally below-average-growth companies, it is unlikely investors expect the companies in Mr. Walker's samples to be able to sustain above average growth. Staff also complains that Mr. Walker relied on historical information to determine the terminal growth rate in his three-stage DCF analysis. (Staff IB at 21-22)

Staff reports that Mr. Walker utilized two estimates of Rm to derive his CAPM estimate. One estimate is the long-term historical total equity earned return rate of 11.85%, as reported by Ibbotson Associates. The other estimate is based on projections reported in The Value Line Investment Survey. (Staff IB at 22)

Staff indicates that for the Value Line estimate, Mr. Walker added together median dividend yield and median price appreciation projections to estimate Rm. As a proxy for the market portfolio's dividend yield, Staff says Mr. Walker adopted the median of estimated dividend yields, for the next 12 months, of all dividend paying stocks under review in The Value Line Investment Survey. For the proxy of expected growth in the market portfolio, Staff says Mr. Walker adopted the 3-5 year estimated median price appreciation potential of all 1700 stocks in the hypothesized economic environment three to five years hence. Staff reports that he then calculated 12 months of annual total returns from the monthly dividend yields and price appreciations. According to Staff, he then determined the midpoint (14.4%) and the average (14.3%) of the annual total returns for the twelve months ending February 2011. Those two rates were averaged together for an Rm of 14.4%. (Staff IB at 22)

Staff states that because Mr. Walker's Ibbotson-based estimate is based entirely on historical data, it is flawed for the same reasons that reliance on historical data is problematic. Staff believes Mr. Walker's Value Line-based estimate of the required rate of return on the market contains several errors. Staff asserts that the median is a biased measure of the aggregate market dividend yield and growth rate. In Staff's view, the median of a sample is its middle value; that is, the sample contains as many values above the median as it contains below it. Staff complains that the magnitude of the difference between those other values and the median is not considered. (Staff IB at 23)

Staff argues that the median fails to properly weight the relative value of the securities composing the market portfolio. Staff says the common stocks of larger companies have a greater effect on market returns because they constitute a greater proportion of the market than those of smaller companies. Staff complains that the median growth estimate does not afford higher weights to larger companies, and thus over-weights the contributions of smaller companies, which tend to have greater growth potential. (Staff IB at 23)

According to Staff, Mr. Walker's Value Line-based estimate compounds that problem by improperly drawing the median dividend yield and growth rates from two different samples. Staff says the median of estimated dividend yields is derived from dividend-paying stocks only. That is, common stocks that do not pay dividends were excluded from the sample from which the median dividend yield was derived. Staff contends that conversely, the median appreciation projection is an estimate of all stocks in the hypothesized economic environment, dividend-paying or not. Staff observes that the dividend yield of non-dividend paying stocks is 0%. Staff believes the median dividend yield for all common stocks included in The Value Line Investment Survey would be lower than that for the subset of common stocks paying dividends. Staff asserts that by adding the higher dividend yield of dividend paying stocks alone to the estimated price appreciation of all stocks, Mr. Walker overestimates the overall return on the market. (Staff IB at 23-24)

Staff notes that Mr. Walker also claims that the beta, which is used to measure systematic risk in the CAPM, does not reflect the risk associated with the relatively small size of the companies in his Water Group and Gas Group. Staff reports that he adds 100 basis points to his Water Group's CAPM results and 70 basis points to his Gas Group's CAPM results. Staff insists that it is not appropriate to apply a size premium to Mr. Walker's CAPM results. (Staff IB at 24)

Staff contends that Mr. Walker's size premium has no theoretical basis. Staff claims that since a size premium has no theoretical basis, to the extent that a correlation between firm size and return exists, that relationship is likely the result of some other factor or factors that are related to both size and return, such as liquidity or information costs, rather than size, *per se*.

Staff also argues that the empirical study of beta on which Mr. Walker's adjustment is based is not applicable to Aqua. Even if one were to accept the existence of a size premium for small companies generally, Staff says Mr. Walker provided no evidence to demonstrate a size premium is warranted for utilities specifically. Staff contends that the study reported in Ibbotson Associates, which forms the basis for Mr. Walker's size premium adjustment, is not restricted to utilities. Rather, it is based on the stocks listed on the New York Stock Exchange ("NYSE"), American Stock Exchange ("AMEX") and National Association of Security Dealers Automated Quotation System ("NASDAQ").

Staff argues that utilities, unlike most stocks listed on the NYSE, AMEX, or NASDAQ, are subject to uniform reporting requirements. Staff also states that their rates and conditions of service are publicly reported. Staff believes the cost of obtaining information regarding smaller utilities in general, and Aqua in particular, is unlikely to be as high as that of unregulated companies that are similar in size; hence, the application of a size premium to a utility is highly questionable. Staff asserts that contrary to Mr. Walker's claims, a study by Annie Wong, reported in the Journal of the Midwest Finance Association, specifically found that there is no justification for a size premium for utilities. In Staff's view, the entire basis of Mr. Walker's size premium is questionable at best. (Staff IB at 26-27)

Citing several academic studies, Staff also asserts that evidence of the existence of a size premium is not very strong. (Staff IB at 24-26)

In Staff's view, Mr. Walker's beta estimate is questionable because missing data undermines the integrity of his Water Group's beta estimate. Staff asserts that Mr. Walker's Water Group's beta estimate is uninformative because it is based on the beta estimates of only three of the six companies in his Water Group. (Staff IB at 27; Staff Ex. 3.0 at 43)

Regarding Aqua's "leverage adjustment," Staff indicates that Mr. Walker adjusted his DCF, CAPM and RP results upward by 55 basis points each because, he claims, there is a large difference in leverage as a result of the difference between the average market value of common equity for his samples and their average book values (i.e., market value > book value). To derive his leverage adjustment, Staff says he averaged the results of two approaches. In the first approach, Staff indicates he used the "Hamada Formula" to "unlever" the Value Line sample beta using market value capital structure ratios, and then "re-levered" the unlevered beta using book value capital structure ratios. Staff says he then multiplied the difference between the unlevered and levered betas by the samples' risk premium to obtain a leverage adjustment estimate.

In the second approach, Mr. Walker estimated that, based on market value debt ratios, the companies in his sample would command a AAA rating, in contrast to their current book-value based A rating. Staff indicates he used the spread between AAA-rated debt and A-rated debt to estimate the implied leverage adjustment. Staff says the average leverage adjustment estimate for those two approaches was 0.60% for the Water Group and 0.50% for the Gas Group. Staff notes that he averaged those two to get the 0.55% leverage adjustment he added to the results of his models. (Staff IB at 27-28)

According to Staff, there are two possible explanations for how utility stock prices have come to exceed their respective book values: (1) the investor-required rate of return has fallen, or (2) expectations of future earnings have risen. Staff states that the investor-required rate of return on an investment in a utility would fall if either the price of risk (i.e., the risk premium) has fallen or if investors' perceived level of risk in that utility has fallen. Staff claims that either way, if a utility's stock price grows to exceed its book value due to a decline in investors' required rate of return for that utility, then it follows that the Commission should authorize a lower rate of return, not a higher one. (Staff IB at 28)

Staff indicates that an increase in investors' expectations of future returns could also cause a rise in market values over book values. Staff suggests such an increase in expectations may be due to positive deviations from the test year amounts upon which the company's rates are set. In Staff's view, the Commission should not approve higher rates today based on such deviations (e.g., higher than projected sales) from past rate case estimates. Staff asserts that increased expectations of future returns may also be a function of earned returns from sources other than the revenue requirements formula component, the product of rate base and rate of return. Staff says earnings from these sources could allow a utility to earn returns beyond the level needed to meet investors' required rate of return on rate base investment. (Staff IB at 29; Staff Ex. 3.0 at 45)

Staff contends that many utilities have unregulated sources of income that would contribute to earnings beyond the level needed to meet the required rate of return. Staff also asserts that the normalization of deferred income taxes and income tax credits might also contribute to the divergence between utility market and book equity values since that practice compensates utilities for taxes they do not yet owe. Staff also claims investors do not value utilities on the basis of accounting earnings, as Mr. Walker suggests, but on economic earnings and cash flow. Staff states that in utility revenue requirements, part of cash flow comes from operating income (i.e., rate base x rate of return). Staff says the larger share of the remainder comes from operating expenses in the form of depreciation and deferred taxes. Staff believes the Commission should not increase a utility's rate of return due to expectations of additional earnings from these other sources. (Staff IB at 29)

According to Staff, Mr. Walker incorrectly argues that the market value derived cost rate reflects the financial risk or leverage associated with capitalization ratios based on market value, not book value. Staff insists Mr. Walker is confusing a measurement tool, common equity ratio, with the phenomenon to be measured, financial risk. Staff maintains that switching measurement tools (i.e., market value or book value based ratios) does not affect the phenomenon to be measured. Staff states that the ambient temperature does not change when the measurement tool is switched from a Fahrenheit thermometer to a Celsius thermometer. Similarly, Staff suggests that the intrinsic financial risk level of a given company does not change simply because the manner in which it is measured has changed.

Staff emphasizes that capital structure ratios are merely indicators of financial risk; they are not sources of financial risk. Staff says several other measures of financial risk, such as the pre-tax interest coverage ratio, funds flow interest coverage ratio, and funds flow debt coverage ratio, reflect neither book nor market common equity values. Staff contends that financial risk arises from contractually required debt service payments. Staff argues that changing the measure of capital structure ratios from a market to book value basis does not affect a company's debt service requirements. (Staff IB at 29-30)

b. Staff Rebuttal Testimony; Reply Brief

In its reply brief, Staff notes that Aqua makes many allegations regarding Staff witness Ms. Kight-Garlisch's analysis supporting her proposed ROE. Staff alleges that most of these allegations are vague and thus difficult to respond to. Staff says Aqua includes a few threats of "capital fleeing the State" and potentially negative reactions of investment advisory firms and the like if Staff's proposed ROE is accepted. Staff believes these scare-tactics are misguided. In Staff's view, if the Commission provides Aqua a fair rate of return, and there is no evidence that Staff's proposal is not fair, then no capital will flee the states and the investment advisory firms are unlikely to offer negative assessments. (Staff RB at 5)

Regarding Staff's water company sample, Aqua alleges that Staff's sample would have been larger if Ms. Kight-Garlisch would not have restricted it to companies with Zacks long-term analyst growth rates. According to Staff, Aqua assumes that credible growth estimates were available through another source for the water companies that Ms. Kight-Garlisch eliminated because they lacked Zacks growth rate estimates. Staff notes that Mr. Walker used three sources for consensus forecast of analyst long-term growth rates. Staff asserts that one of his sources, Yahoo! (First Call), forecast are not reliable because of its policy on updating analyst growth estimates. Staff says Yahoo! indicated that it does not replace or remove analyst growth estimates until a new estimate is provided. Consequently, some of the growth rates that Yahoo! publishes can be out of date. (Staff RB at 5-6)

Regarding "DCF Methodologies," Staff takes issue with Aqua's argument that Staff "flip-flopped DCF methodologies between direct and rebuttal testimony." Staff says it presented an updated analysis on rebuttal in response to Aqua's assertion that Staff's Water Sample should be the same as approved in Docket No. 09-0319 or Docket No.10-0194 and that Staff should use a non-constant DCF model. Staff asserts that Ms. Kight-Garlisch used the same methodology to develop her Water Sample as Staff used in Docket No. 09-0319 and Docket No. 10-0194; however, Staff says data availability necessitated a change in the composition of the sample. (Staff RB at 6)

Ms. Kight-Garlisch stated that the data available had changed again between when she performed the analyses presented in her direct testimony and her rebuttal testimony. Therefore, she presented an updated analysis that adds American States Water Co., California Water Service Group and SJW Corp to her Water Sample. (Staff Ex. 8.0C at 1-2)

According to Ms. Kight-Garlisch, at the time she prepared her direct testimony, the growth rates in her DCF analysis were sustainable estimates and thus the constant growth DCF model was appropriate. However, "the updated growth rates for the Water Sample are no longer sustainable and the sustainability of the Utility Samples' updated growth rates is questionable. Therefore, a non-constant DCF is necessary in an updated analysis based on the September 16, 2011 growth rates." (Staff Ex. 8.0C at 4)

Ms. Kight-Garlisch contends that the use of a constant growth or non-constant growth DCF analysis is not based on past use, but on what is appropriate given the data available at the time of analysis. She said Staff has consistently used the non-constant DCF when growth rate sustainability is questionable and the constant growth DCF when the growth rate is sustainable. According to Staff, "As can be seen from Ms. Kight-Garlisch's updated analysis, the results of the NCDCF analysis performed about two months after the constant growth DCF analysis support Staff's recommended cost of equity for Aqua." (Staff RB at 6-7; Staff Ex. 8.0C at 4, 13-18)

On page 7 of its reply brief, "Long-Term Growth of the Economy," Staff addresses Aqua's claim that Staff "places undue reliance on short term recent economic conditions in determining a long term sustainable growth of the economy." Staff states that Aqua witness Mr. Walker's long-term growth rate of 6.08% is based on the historical growth in real GDP of 3.32% from 1929-2009 and a long-term projected inflation rate of 2.8%. Staff maintains that historical data should not be used to estimate the forward-looking rate of return on common equity. Staff says that in comparison to forecasted real GDP growth, EIA forecasts real GDP growth will average 2.6% during the 2021-2035 period and Global Insight forecasts real GDP growth will average 2.6% during the 2021-2041 period. Staff claims these projected growth rates for real GDP indicate that Mr. Walker's historical real GDP growth estimate overstates the level of growth expected over the long-term and thereby overstates his investor-required rate of return. (Staff RB at 7; Staff EX. 8.0C at 4-5)

Ms. Kight-Garlisch asserts that an economy-wide growth rate, whether 4%, 5%, 6% or even more, is not sustainable on a per-share basis if a company is not reinvesting a portion of its earnings. Staff says the growth rate per share of a company that pays out 100% of its earnings as dividends equals 0% regardless of the magnitude of economy-wide growth. In this case, Staff says Mr. Walker's calculated earnings retention ratios of 29% for his water group and 43% for his gas group are too low for his water and gas group companies to sustain the long-term growth rates he employs. (Staff RB at 7-8)

Staff states that together with the dividend payout rate that Mr. Walker assumed, the 6.08% growth rate requires an average ROE of 20.97% for his water group and 14.14% for his gas group. Staff reports that Value Line projects a rate of return on common equity of 12.0% for his water group and 11.7% for his gas group for the 2013-2015 timeframe. (Staff RB at 8)

Staff also contends that the data Mr. Walker relied upon suggests that the companies composing his sample groups are below-average growth companies relative to the overall market. Staff states that relative to the overall market, which has a retention ratio of 67.44%, the retention rate for his water group of 29% and gas group of 43% are well below average. Staff claims one would expect utilities overall to earn below-average returns due to the below average risk reflected in their below average betas (i.e., betas less than one), such as the 0.72 water group beta and the 0.67 gas group beta Mr. Walker presented. Staff says since growth is a function of those below-average earnings retention rates and the below-average return on those earnings, one would expect below-average growth for utilities. (Staff RB at 8)

According to Staff, the investor-required rate of return is a function of investor's expectations of the future, not a mish-mash of historical averages. Staff also asserts that current economic forecasts by professional forecasters do not support use of a 6.00% long-term growth rate estimate. Staff says the Energy Information Administration ("EIA") projects nominal economic growth of 4.5% for the 2021-2035 period and Global Insight forecasted nominal economic growth of 4.4% for the 2021-2041 period. (Staff RB at 8-9)

On page 8 of its reply brief, under "Alleged Exclusive Reliance on the DCF Model," Staff takes exception to what it refers to as Aqua's allegation that Staff's entire analysis relies exclusively on the DCF, since the market return used in Ms. Kight-Garlisch's CAPM model was derived through a DCF calculation. Staff asserts that Ms. Kight-Garlisch's risk premium model uses a DCF calculation only to derive the market return ("Rm"), one of its three inputs. Staff reports that the other two inputs, the risk-free rate ("Rf") and beta ("β"), do not appear in the DCF formula. Staff also believes this criticism is disingenuous since in addition to using an historical market return, Mr. Walker's CAPM also uses DCF-derived market returns.

Staff states that Rm is forward-looking because it measures investors' rate of return requirement; therefore, Rm can only be estimated through a DCF calculation without resorting to untimely, obsolete historical data. Staff asserts that if contrary to previous Orders, the Commission determines that the DCF-derived Rm should not be applied within the risk premium model, then Ms. Kight-Garlisch would have to substitute a Rm derived from an historical risk premium. Staff states that the Ibbotson historical risk premium is 6.7%, which added to the 4.4% U.S. Treasury bond yield from Ms. Kight-Garlisch's direct testimony, and would result in an Rm estimate of 11.10%.

According to Staff, Ms. Kight-Garlisch's risk premium analysis using the historical Rm would produce cost of common equity estimates of 8.69% for her Water Sample and 9.29% for her Utility Sample, both of which are below the 9.81% and 10.58% estimates obtained with Ms. Kight-Garlisch methodology. (Staff RB at 9)

On page 10 of its reply brief, under "Commission Authorized Cost of Equity," Staff disputes Aqua's allegation that Staff's proposed return on equity is a "significant and unreasonable" departure from the returns on equity granted by the Commission in 2010 and other recent water utility rate cases. In Staff's view, such results-based comparisons are of limited value, as the previously authorized returns are based on facts that differ from those in this proceeding and are, thus, likely inapplicable (i.e., they represent authorized returns for other companies, in other jurisdictions, at other times representing other market environments).

Staff argues that in this case, Aqua's comparisons are meaningless, as the critical facts needed to assess the degree of comparability are unknown. Staff claims that Aqua failed to provide evidence to show that Aqua is similar in overall risk to any of the companies whose authorized returns are reflected and included ROE's for very small companies with no access to the public equity market, neither directly nor indirectly through affiliates. (Staff RB at 10)

Staff also asserts that Aqua fails to consider Staff's most recent cost of equity analysis for a water company. Staff says the Order in Docket Nos. 11-0059/11-0141/11-0142 Consolidated approved a cost of common equity of 9.56%. Staff says the 9.56% cost of equity recommendation is for a subsidiary of a holding company that has financial strength commensurate with a credit rating of Baa3/Ba1. (Staff RB at 10)

On page 11 of its reply brief, under "Spot Prices," Staff disagrees with Aqua's contention that Staff places undue reliance on spot date interest rates. Staff contends that the market value of common stock equals the cumulative value of the expected stream of future dividends after each is discounted by the investor-required rate of return. Staff says new information becomes available every day and investors rethink their projections of future cash flows, the risk level of the company, and the price of risk. In Staff's view, only a current stock price will reflect all information that is available and relevant to the market. (Staff RB at 10-11)

Staff also argues that research has found that the last observed stock price is the best time series estimator of future stock prices. Staff claims the Commission has adopted costs of capital based on the most recent spot data much more frequently than it has relied on outdated historical data. According to Staff, the Commission has repeatedly ruled against the use of historical data in estimating the forward-looking cost of common equity estimate. Staff asserts that the cases Aqua cites where the Commission rejected Staff's use of spot prices, Docket No. 10-0467 and Docket No. 07-0241/07-0242 (Cons.), are exceptions to the rule.

Staff contends the Commission is not opposed to using spot data at all; to the contrary, it deviates from the practice of using spot data only with reluctance. Staff also says the standard established in Docket Nos. 07-0241/07-0242 (Cons.) for deviating from that Commission ratemaking practice – "when it can be shown that the proxy itself strays from a zone of reasonableness to the degree where it offers an unreliable estimate of the appropriate ROE" - has not been met in this proceeding. (Staff RB at 11-12; Staff Ex. 8.0C at 12-13)

In Staff's view, the Commission should once again reject Aqua's non-constant DCF analysis due to its over-reliance on historical data, particularly given that Staff has demonstrated that spot stock prices have not produced aberrant estimates. Staff recommends the Commission adopt its proposed ROE of 9.43%, which it believes is reasonable, consistent with prior Staff positions and recent Commission orders and supported by the record evidence. (Staff RB at 12)

3. The AG's Position

The AG notes that Staff witness Kight-Garlisch recommended an 8.13% overall cost of capital, with a 9.43% ROE. The AG also reports that Company witness Walker criticized Ms. Kight-Garlisch's recommendation in his rebuttal and surrebuttal testimony, arguing that a 9.43% ROE is entirely unreasonable. The AG says Mr. Walker portended that if the Commission adopted a 9.43% ROE, capital will flee the state, and Illinois' economy will suffer. The AG recommends that the Commission disregard Mr. Walker's "exaggerated testimony" and adopt the Staff cost of capital. (AG IB at 2)

The AG says that in Aqua's last rate case, Mr. Walker made the same prediction in response to the Staff ROE recommendation. According to the AG, much of Mr. Walker's surrebuttal testimony repeats, almost word-for-word, his dire predictions in Docket No. 10-0194. The AG asserts that although the stipulated 10.03% ROE in Docket No. 10-0194 was somewhat higher than Staff's initial recommendation, it was lower than the 11.30% that Mr. Walker testified was necessary to attract capital to Aqua in that case. The AG claims Mr. Walker's dire predictions have not proved correct. (AG IB at 2)

The AG states that in support of his argument that the Commission should adopt an ROE higher than the 9.43% recommended by Staff, Mr. Walker argues that the Aqua Illinois companies have historically under-earned relative to its authorized ROE. In the AG's view, he seems to suggest that an increased ROE is necessary to compensate for the low earned returns between rate cases. The AG argues that even assuming that Mr. Walker's assertion that Aqua has under-earned is true, Aqua's Illinois and national investment and dividend performance both undermine Mr. Walker's claim that Aqua has been hampered in obtaining capital. (AG IB at 2)

The AG reports that Aqua's itemized investments totaling more than $3.9 million in 2009. The AG also states that in 2010, Aqua Illinois earned 7.0% return on common equity and made more than $6 million in investments. The AG says these investments only include the Districts combined in this docket, serving about 23,000 customers and do not include the Kankakee Division, which has about 25,000 customers. (AG IB at 3)

According to the AG, this allegedly low Illinois return has not prevented Aqua Illinois' parent company from investing a record $327 million in infrastructure improvements as a part of its capital investment program. The AG says Mr. Walker admitted on cross-examination that this investment demonstrates that the Company has been able to obtain capital for its operations during 2010. According to Aqua America, this investment has been supported by Aqua America's access to the capital markets at favorable interest rates as evidenced by Aqua America's fixed rate long-term debt, which now has a weighted average interest rate of 5.36 percent, down from 7.2 percent in 2000. The AG believes Aqua and its parent are providing shareholders and investors an adequate return. The AG states that in 2010 Aqua America increased dividends for the 20th time over the last 19 years. The AG says shareholder dividends increasing by nearly 7% in 2010. The AG argues that Aqua America has been able to obtain capital – both equity and debt – notwithstanding the allegedly inadequate returns the Commission has adopted in the past. (AG IB at 3)

The AG says Mr. Walker relies on the information contained in Annual Reports to shareholders in forming his opinion about access to and the cost of capital. The AG claims Aqua America's 2010 Annual Report to Shareholders paints a very different picture than the one painted by Mr. Walker's testimony in both Docket No. 10-0194 and the present docket. (AG IB at 3-4)

The AG urges the Commission to reject Mr. Walker's dire predictions as an overblown reaction to a cost of capital that simply is less than what Aqua America would like Aqua Illinois to provide. The AG requests that the Commission adopt Staff's recommended ROE in this case. (AG IB at 4)

In its reply brief, the AG notes that Aqua cites the seminal *Bluefield* and *Hope Natural Gas* United States Supreme Court cases in arguing for its ROE. The AG says those cases hold that the regulators should set a return that is "reasonably sufficient." According to the AG, *Hope Natural Gas*, however, and a more recent case, *Duquesne Light Co. v. Barasch*, 488 U.S. 299, 109 S.Ct. 609 (1989), both stand for the more relevant proposition that regulatory commissions have broad latitude to set rates, and that the Courts only review the total impact of an Order. The AG maintains that, the overall weighted cost of capital recommended by the Staff is both reasonable and well within the bounds of prior Commission decisions. (AG RB at 1-2)

According to the AG, Aqua itemizes various criticisms of the Staff's ROE calculation to support its view that the Staff ROE represents an unexplained and unsubstantiated dramatic departure from historical, Commission-approved ROEs of 10.40% to 10.71% for other water and sewer utilities. The AG says Aqua takes issue with the Staff's exercise of judgment in determining how to treat samples of water utility ROEs as opposed to samples of non-water utility company ROEs. The AG believes this criticism merely represents a disagreement with the Staff, and does not support Aqua's position that the Staff’s recommendation is a “dramatic departure” from prior Commission decisions. The AG asserts that the law is clear that a prior return on equity finding is not binding on a later decision. The AG argues that each case depends on the circumstances facing the utility at that particular time and place. The AG says an order may not properly be set aside merely because the Commission has on an earlier occasion reached another result; administrative authorities must be permitted, consistently with the obligations of due process, to adapt their rules and policies to the demands of changing circumstances. (AG RB at 2)

The AG claims Staff's proposed 8.13% overall cost of capital exceeds the cost of capital approved by the Commission in the last Illinois American Water Company rate case, Docket No. 09-0319, where the Commission approved an overall cost of capital of 8.02%. The AG also says it exceeds by 34 basis points the 7.79% overall cost of capital in the Utilities Inc. request for water and sewer rate increases in Dockets 09-0548/0549 and that it exceeds the 7.71% overall cost of capital in the more recent Utilities Inc. request for water and sewer rate increases in Dockets 11-0059/0241/0242. The AG urges the Commission to reject Aqua’s premise that the Staff recommendation is somehow unreasonably low or inconsistent with prior orders. (AG RB at 3)

The AG says that in setting the revenue requirement, the Commission applies the overall cost of capital to an approved rate base. The AG believes that in determining whether the recommended cost of capital is an unreasonable deviation from past practice or orders, the Commission should assess the overall cost of capital rather than its piece parts. (AG RB at 3)

According to the AG, the ROE demanded by Aqua is substantially higher than the highest ROE reported in the Staff water ROE sample. The AG says the DCF results for the Staff water ROE sample range from 7.06% to 9.46%, yet Aqua suggests that an ROE of 10.9% is reasonable, while an ROE of 9.43% is somehow outrageous. The AG also says that in the Stipulation increasing the ROE above the Staff witness’ recommendation in Docket 10-0194, the Stipulation provided that both Aqua and the Staff could present alternative arguments on all issues in future Aqua rate cases. The AG believes the Staff is not obligated to increase its witness’s recommendation in this docket simply because the Staff entered into a settlement with Aqua in a prior docket. (AG RB at 4)

4. Commission Analysis and Conclusions

Evidence regarding Aqua’s cost of equity was provided by witnesses for Aqua and Staff. Aqua witness Mr. Walker’s calculation employed a discounted cash flow (“DCF”) method and two risk premium models, one of which was a capital asset pricing model (“CAPM”). Mr. Walker compared Aqua, a non-publicly traded company, against “comparable” groups of water utilities and gas utilities to estimate the common equity cost rate. He recommended a return on equity (“ROE”) of 10.9%.

Staff witness Ms. Kight-Garlisch measured the investor-required rate of return on common equity for Aqua using DCF and CAPM models. Since Aqua does not have market-traded common stock, DCF and risk premium models cannot be applied directly to Aqua; the witness applied both models to a sample of water utility companies and a sample of public utility companies deemed comparable to Aqua. In her direct testimony, she recommended an ROE of 9.43%. On rebuttal, Ms. Kight-Garlisch updated her ROE analysis.

Staff continues to recommend an ROE of 9.43%. Staff argues, "As can be seen from Ms. Kight-Garlisch's updated analysis, the results of the NCDCF analysis performed about two-months after the constant growth DCF analysis support her recommended cost of equity for Aqua." (Staff RB at 7)

a. Composition and Weighting of Samples

Aqua complains that Staff should have used a larger water sample group that includes American Water Co. (Aqua Ex.11.0 at 4-17, Aqua Ex. 15.0 at 8-11) Staff believes that American Water Co. should not be included in the sample because its betas are based upon three rather than five years of data.

First, it appears to the Commission that Aqua's Water Sample was comprised of six firms while Staff's initial Water Sample was comprised of five firms. It is the Commission's understanding that selecting sample size and composition is a difficult undertaking. On the one hand, including a sufficient number of companies mitigates concerns about measurement error. On the other, increasing the number of companies in the sample increases the likelihood that some of the firms in the sample will be less like the target firm, in this case, Aqua.

On rebuttal, in its updated analysis, Staff added some firms to the water sample. (Staff Ex. 8.0C at 2) Staff's rebuttal testimony also demonstrated that inclusion of American Water Co. in Staff's Water Sample in its updated analysis would have virtually no impact on the results. (Staff Ex. 8.0C at 18 and 21)

While the Commission appreciates the concerns raised by Aqua, the Commission finds that the methodologies used by Staff in determining the size and composition of its water sample in its direct and rebuttal testimony properly balance sample size against comparability of risk and were otherwise appropriate for use in this proceeding.

In deriving its recommended cost of common equity, Staff applied two-thirds weight to the Water Sample and one-third weight to the Utility Sample results. According to Staff, this proposed weighting is based upon its view that while the Water Sample is more similar in risk to Aqua – for reasons explained in detail in Ms. Kight-Garlisch's testimony -- the small sample raises concerns about measurement error. (Staff IB at 16-20; Staff Ex. 3.0 at 29-33) Although Aqua objects to Staff's proposed weighting as assigning too little weight to the Utility Sample, it does not appear to contest the rationale for Staff's proposal other than to complain that Staff's proposal is different than Staff's recommendation in previous rate cases. (Aqua Ex. 11.0 at 22-23, Aqua Ex. 15.0 at 6-7)

In the Commission's view, Aqua's recommendation regarding the weighting applied to Staff's results is unconvincing. The Staff witness provided a thorough explanation of her analysis, which included a comprehensive review of credit ratings and a principal components analysis. Her analysis indicates that the Water Sample is more similar in risk to Aqua than is the Utility Sample. The Commission finds Staff's proposed weighting of results is supported by the record and should be adopted.

b. DCF Analysis

Before any adjustments, Aqua's constant growth DCF analyses suggest required rates of return of 10.7% for the Water Group and 9.8% for the Gas Group. (Aqua Ex. 5 at 34) Again, before any adjustments, Aqua's non-constant growth DCF analysis suggests required rates of return of 10.4% for the Water Group and 10.3% for the Gas Group. (*Id*. at 40) As the Commission understands it, Aqua proposes that both its constant growth and non-constant growth DCF analyses be considered in determining the cost of common equity.

Staff's constant growth DCF analyses, presented on direct, produced required rates of return of 8.36% for its Water Sample and 9.65% for its Utility Sample. (Staff Ex. 3.0 at 16) Staff's non-constant DCF analyses, used in its updated analysis, produced required rates of return of 9.02% for the Water Sample -- or 9.03% when American Water Works Company is included -- and 9.67% for the Utility Sample. (Staff Ex. 8.0C at 18) It appears that Staff's recommendation in this case is based upon its constant growth DCF in its direct testimony and that its non-constant growth DCF analyses are intended to corroborate, or support, the results identified in its direct testimony. (Staff IB at 6-7)

Staff takes issue with Aqua's reliance on historical data in the DCF model. Additionally, Staff asserts that the analyst growth rates relied upon by Aqua are unsustainably high. (Staff Ex. 3.0 at 35-37, Staff Ex. 8.0C at 4-7)

Aqua claims Staff's DCF analysis has many shortcomings such as Staff’s reliance on the constant growth DCF model in its direct testimony (Aqua Ex. 11.0 at 6, 20-23); results which are “below the zone of reasonableness” compared to ROEs authorized in prior orders (Aqua Ex. 11.0 at 10-14); reliance on spot market data in the DCF (Aqua Ex. 11.0 at 17-20); use of the non-constant DCF model in rebuttal to "mask the obvious increase in common equity cost rates" (Aqua Ex. 15.0 at 10); and the sustainable growth rate used in rebuttal testimony (Aqua Ex. 15.0 at 11-16). The Commission notes that Aqua's briefs contained additional criticisms of Staff's DCF analyses, which are summarized above.

It appears to the Commission that an important element of Aqua's analysis is its view that water utilities will grow faster than the overall economy for the next several decades, if not for the next century. (Aqua Ex. 5 at 35-40) This conclusion is based in part on the notion that the recent past is an indicator of what may happen in the future over the long term. The Commission is concerned that such a view, which suggests that realized growth is an appropriate proxy for expected growth, is shortsighted.

While there has been much uncertainty regarding the future long-term growth of the economy, there is no indication that the Commission, in its rate orders, has accepted the assumption that utilities will grow at a rate faster than the overall economy, or that expected growth is directly reflective of realized growth. The Commission does not find Aqua's evidence sufficient to support such a proposition in this proceeding. Finally, the Commission shares Staff's concern that Aqua's growth rates are not sustainable, which causes both its constant and non-constant DCF results to be excessive. (Staff Ex. 3.0 at 36-37

As discussed above, Aqua also takes issue with Staff's use of spot data in its DCF analysis, citing cases where the Commission did not adopt Staff's use of spot prices. As indicated by Staff, the Commission "has adopted costs of capital based on the most recent spot data much more frequently than it has relied on outdated historical data." (Staff RB at 11) Staff characterizes the cases relied upon by Aqua as "exceptions to the rule," where "the proxy itself strays from a zone of reasonableness to the degree where it offers an unreliable estimate of the appropriate ROE." (Staff RB at 11-12, citing Order in 07-0241/07-0242 (Cons.))

Aqua argues that recent declines and chaos in the stock market would undermine the reliability of Staff's use of spot prices. On rebuttal, Staff presented an updated analysis for each day in a one-week period approximately two months after the original spot price data. (Staff Ex. 8.0C at 10-13) As Staff observes, the data indicates that the volatility of the broader stock market did not have a large impact on the return on common equity for Staff's Water and Utility Samples. The Commission concludes that the data used by Staff provides a more reliable estimate of ROE than does the historical data use by Aqua.

As discussed above, Aqua makes various arguments that Staff's ROE results are too low when compared to other authorized returns in prior orders. In the Commission view, while prior findings regarding which methodologies are properly used in estimating ROE may be of value from one case to the next, the specific ROEs authorized in prior cases are of little value, because any given case depends on so many different facts specific to the case, including the risk of the firm and countless macro and microeconomic factors. To the extent prior ROE authorizations have relevance, the Commission observes that in its most recent water company rate order, Docket Nos. 11-0059/11-0141/11-0142 (Cons.), the approved ROE was 9.56%.

With regard to the DCF methodology in Staff's analysis, Staff used a constant growth DCF model in its direct testimony. On rebuttal, Staff presented an updated analysis in which it used a non-constant growth model, the result of which, according to Staff, "support Staff's recommended cost of equity for Aqua" of 9.43% as recommended in Staff's direct. (Staff RB at 7)

Aqua criticized Staff's "switch," characterizing it as "flip-flopping" and a "moving target" which Aqua views as inconsistent and result-oriented. (Aqua IB at 17; RB at 3, 7) A review of the record, however, indicates that Staff followed its normal practice of basing its decision on whether to use a constant growth or a non-constant growth DCF analysis on "what is appropriate given the data available at the time of analysis." (Staff IB at 6) The witness testified that "a non-constant DCF [was] necessary in an updated analysis" because the updated growth rates for the Water Sample "are no longer sustainable." (Staff Ex. 9.0C at 4)

Having reviewed the record, the Commission finds that for purposes of this proceeding, it would be reasonable to rely on either the constant or non-constant DCF analyses performed by Staff. Despite Aqua's concerns, these Staff analyses appear to be theoretically sound. For the reasons given above, they use more reasonable inputs, and provide more reliable cost estimates, than do Aqua's analyses. Because they are the more current analyses in the record, the Commission concludes that the non-constant DCF analyses contained in Staff's rebuttal testimony, 9.03% for the Water Sample (including American Water Co.) and 9.67% for the Utility Sample, are the more appropriate and reliable, and should be used in establishing Aqua's authorized return on common equity.

c. CAPM

Staff takes issue with Aqua's reliance on historical data in the CAPM model. (Staff Ex. 3.0 at 35-37) Staff also asserts that Aqua's derivation of the overall market return is flawed. (Staff Ex. 3.0 at 37-39) Staff disputes Aqua's size premium (Staff Ex. 3.0 at 39-43), and contends that missing data undermines Aqua's beta estimates. (Staff Ex. 3.0 at 43)

Aqua disagrees, and also complains that Staff used the DCF model to derive the overall market return used in its CAPM analyses, resulting in an over-reliance on the DCF model in the proceeding. (Aqua Ex. 11.0 at 20)

With regard to Staff's CAPM analyses, the Commission does not share Aqua's concern that Staff's approach for determining the market return results in an over-reliance on the DCF model. As Staff explains, the market return is only one of several different inputs into the CAPM. The other two inputs, the risk-free rate and "beta," do not appear in the DCF formula.

Based on the record in this case, the Commission agrees with Staff that the market return, in the context of a rate case, should be a forward-looking input into the CAPM. Using the DCF model, a theoretically sound approach to estimating the required rate of return, appears to the Commission to be reasonable approach for this purpose.

Regarding the betas used in the CAPM analyses, it appears that the Staff proposal is better explained in and supported by the record. In its direct case, Aqua provides only a limited amount of testimony regarding the betas used in its CAPM analysis, essentially referring to Aqua Exhibit 5, Schedule 20. (Aqua Ex. 5 at 48-49) As discussed above, even though it objected to the small size of Staff's Water Sample, five companies, it appears that the beta for Aqua's Water Sample is based upon three firms. (Aqua Ex. 5, Schedule 20 at 4) Staff criticizes Aqua's Water Sample beta estimate (Staff Ex. 3.0 at 43); however, it does not appear Aqua witnesses responded substantively to Staff's criticism.

As indicated above, Aqua witness Mr. Walker also added a size premium to his CAPM results. Staff opposes this adjustment, contending, in part, that it has no theoretical basis, and that the study on which the adjustment is based is not restricted to utilities. As a general proposition, the Commission has not endorsed a size adjustment, whether applied to CAPM or otherwise, in establishing the cost of common equity. Having evaluated the evidence provided by Aqua and Staff, the Commission concludes that Aqua has not justified a size adjustment in this proceeding.

Of the two CAPM analyses proposed in this case, the Commission finds that Staff’s proposal is the more theoretically sound and reliable for use in establishing Aqua's cost of equity in this proceeding. The Commission finds that the CAPM results in Staff's rebuttal testimony, 9.44% for the Water Sample and 10.30% for the Utility Sample, are reasonable and should be used.

d. Risk Premium Model

In addition to its CAPM analysis, Aqua used a second risk premium model in estimating its cost of common equity. (Aqua Ex. 5 at 51-55) Staff objects to Aqua's use of this risk premium model because of it reliance on historical data. (Staff Ex. 3.0 at 34-36) The Commission shares Staff's concern that Aqua's risk premium model relies extensively on historical earned returns.

Additionally, the Commission is concerned with the extent of judgment used in implementing this risk premium model. It appears to the Commission that Aqua's witness makes numerous subjective decisions in implementing the risk premium model without sufficient bases for these decisions. It is for similar reasons that the Commission has not typically relied upon the risk premium model in estimating utilities' cost of common equity. The Commission concludes that Aqua's risk premium model is not sufficiently reliable to be considered in this proceeding.

e. Leverage Adjustment

With regard to Aqua's proposed "leverage adjustment," Aqua proposes to adjust, i.e. increase, the market-derived cost of common equity by 55 basis points attributable to a large difference in leverage which exists, according to Aqua, due to the extent to which the market value of common equity of the companies in Aqua's samples exceeds their book value. (Aqua Ex. 5 at 41-47)

Staff opposes Aqua's proposal for a number of reasons as summarized above. (Staff Ex. 3.0 at 43-47)

As an initial matter, the Commission notes that it has been applying market derived returns on common equity to book values for decades. During this period, Illinois utilities have generally had adequate access to capital at reasonable costs. In those few instances where some specific utilities have had difficulty accessing capital markets at reasonable costs, there were specific underlying issues not related to the Commission's general ratemaking practices.

The Commission also observes that over the years, witnesses have suggested leverage adjustments in rate cases for many of the reasons identified by Aqua. The Commission, however, has declined to adopt such a proposal for many of the reasons identified by Staff. The Commission concludes that Aqua has not provided sufficient rationale for adopting its proposed leverage adjustment in this proceeding and Staff has adequately explained why such an adjustment is inappropriate.

f. Approved ROE

Upon giving consideration to the foregoing conclusions, the Commission finds that Aqua should be authorized to earn a rate of return on common equity of 9.49%. That value is derived as shown in the table below:

Authorized Rate of Return on Common Equity

	Result	Weighting
DCF-Water Sample	9.03%	2/3
DCF-Utility Sample	9.67%	1/3
Average DCF	9.24%	
CAPM-Water Sample	9.44%	2/3
CAPM-Utility Sample	10.30%	1/3
Average CAPM	9.73%	
Average of DCF and CAPM	**9.49%**	

g. Commission Conclusion on Cost of Capital and Return on Rate Base

Upon giving consideration to the approved capital structure and cost rates for short-term debt, long-term debt, preferred stock, and common equity, the Commission concludes that Aqua should be authorized to earn an overall rate of return on original cost rate base of 8.16%. The table below shows how this rate of return was derived.

Aqua Illinois, Inc.
Weighted Average Cost of Capital
Average 2012

Component	Amount	Proportion	Cost	Weighted Cost
Short-term Debt	$ 1,104,167	0.69%	2.00%	0.01%
Long-term Debt	$ 73,334,385	45.77%	6.71%	3.07%
Preferred Stock	$ 379,057	0.24%	5.47%	0.01%
Common Equity	$ 85,419,376	53.31%	9.49%	5.06%
Total	**$ 160,236,985**	**100%**		**8.16%**

VII. COST OF SERVICE; RATE DESIGN; CONSOLIDATION OF DIVISIONS

A. Cost of Service Analysis

Staff witness Mr. Boggs testified that a cost of service ("COS") study "is performed to allocate costs among all customer classes to determine each customer class' respective responsibility for the costs imposed on the utility." (Staff Ex. 4.0 at 19-20) Aqua presented a cost of service study ("COSS") "for the [proposed] consolidated [water] districts and each district separately." (AG IB at 4) Aqua's proposals to consolidate rate divisions, as well as sewer divisions, are discussed below.

With respect to cost of service, Aqua presented a "water COS" using the base-extra capacity method. (Staff Ex. 4.0 at 21) Costs are allocated to "basic functional cost components," which are base costs; extra capacity costs; customer costs; and direct fire protection costs. (*Id*. at 24) The next step entails the distribution or allocation of component costs to the various customer classes to reflect the cost of serving those classes. (*Id*. at 25-26)

Rates are then designed to recover revenues from each customer class, as discussed in more detail below.

Staff witness Mr. Boggs concurs in Aqua's use of the base-extra capacity method for determining cost of service; however, he testified that Aqua did not use coincident peak ("CP") demand factors in its cost of service study, despite being directed to do so in the Commission's Order in Docket 10-0194. (Staff Ex. 4.0 at 22, 24, 30)

Aqua states that on rebuttal, "it agreed to Staff's suggestion that it use Coincident Peak Demands to allocate extra capacity, and Aqua revised its COSS accordingly." (Aqua IB at 23; Aqua Ex. 12.0 at 3)

AG witness Mr. Rubin also reviewed Aqua's COSS, and he took issue with certain aspects of it. (AG Ex. 1.0) Mr. Rubin also offered testimony and recommendations regarding limits on class revenue increases, rate design and rate division consolidation, as discussed below. (*Id*.; AG Ex. 2.0)

Having reviewed the record, the Commission finds that the use of base-extra capacity approach, including the use of Coincident Peak Demands to allocate extra capacity as recommended by Staff, is an appropriate method for allocating the COS in this proceeding.

With respect to the distribution or allocation of component costs to the various customer classes to reflect the cost of serving those classes, the Commission observes that where divisions are consolidated for rate purposes, the allocation of costs to customer classes will be done on a consolidated basis.

B. Consolidation of Water Rate Divisions and Rates

Currently, each of Aqua's 10 water divisions has its own standalone rate structure and rates designed "to produce revenues to sustain each individual division." (Staff Ex. 4.0 at 6) Nine of those divisions, Oak Run, Ravenna, Hawthorn Woods, Willowbrook, Ivanhoe, Fairhaven, Candlewick, Vermilion and University Park, are part of this rate proceeding. The tenth, Kankakee, is not part of this proceeding.

Of those nine divisions that are part of this proceeding, Aqua is proposing a unified, i.e. common or consolidated, rate structure and rates for eight of the divisions, the exception being University Park which would remain a standalone rate division with its own rates in order to avoid rate shock. (*Id*.; Aqua Ex. 6.0 at 8) In other respects, Aqua proposes to include University Park in the consolidation.

1. Aqua's Proposal

In support of Aqua's proposed consolidation, Aqua witness Mr. Hanley testified that the consolidation would create increased efficiencies and has proven successful for other water, gas, and electric utilities. (Aqua Ex. 4.0 at 14) He contends that consolidation is good for customers because it protects them against dramatic rate increases and it also addresses smaller system viability issues. (*Id*.) Aqua further argues that customers will also benefit from decreased rate case and administrative expenses due to the Company's ability to file single rate cases for water and sewer.

In Aqua's view, its water division consolidation proposal "would pave the way for realizing full consolidation and is unlikely to create an unbearable rate increases to customers in the smaller divisions." (Aqua draft order at 22; Aqua Ex. 12.0 at 10-11)

In the event the Commission were to adopt Staff's consolidation plan, discussed below, Aqua proposes modifications to it. (Aqua Ex. 16.0 at 5)

2. Staff Proposal

Staff reviewed the consolidation plan advanced by Aqua, and Staff offered its own consolidation proposal. For each division, the percentage increase for average use customers, at Aqua's proposed rates and consolidation plan, are shown in a table in Staff witness Boggs' rebuttal testimony. (Staff Ex. 9.0R at 4) Also identified, for each division, is the percentage increase if all divisions remained standalone. (*Id*. at 5-6) It is noted that Staff's consolidation proposal incorporates the customer and usage charge "revenue splits" recommended by Staff, as discussed in more detail below under "Water Rate Design."

Staff agrees with Aqua that University Park should remain as a standalone division "given the significantly adverse bill impacts that would result if University Park were included in the Consolidated Tariff Group." (Staff Ex. 4.0 at 10) According to Staff, "if the University Park customers were subjected to the Company's proposed rate structure for the Consolidated Tariff Group [under the revenue requirement initially filed], a customer using 5,000 gallons of water in a month would experience a 234% increase in its monthly bill." (*Id*. at 10)

Staff disagrees, however, with Aqua's proposal to include the Fairhaven and Candlewick divisions in the consolidated rate group. (Staff IB at 34-35; Staff Ex. 9.0R at 9) Staff instead recommends that those two divisions be combined into a two-division rate group.

The Staff witness explained, "Fairhaven and Candlewick customers would have significantly larger monthly bill increases if they were made part of the Consolidated Tariff Group than if they remained as stand alone divisions. Based on my analysis, Candlewick customers would realize a reduction in their current monthly customer charges if they stood alone; likewise, Candlewick customers would realize a lower Customer Charge than they currently pay if they consolidated with the Fairhaven customer base. It is not typical for Staff to propose a reduction in Customer Charges in a rate case where the cost to serve the customer base has increased." He continued, "In this rate case, however, a lower Candlewick Customer Charge was necessary to mitigate rate shock to Fairhaven customers under my proposed consolidation of Fairhaven and Candlewick. Consolidating Candlewick with Fairhaven provides each with the benefit of having a larger customer base to spread out costs while avoiding the larger rate shock that would occur if these divisions were included in the Consolidated Tariff Group." (Staff Ex. 9.0R at 9)

Staff recommends that the other six divisions, Oak Run, Ravenna, Hawthorn Woods, Willowbrook, Ivanhoe and Vermilion, be combined into a six-division consolidated rate group.

Staff explains, "The customers of Ravenna and Hawthorn Woods would have larger monthly bill increases if they remained as stand alone divisions than if they were included in the Consolidated Tariff Group. Vermilion customers would have a slightly larger monthly bill increase if it was included in the Consolidated Tariff Group than if it remained a standalone. However, its increase in either scenario would be less than the overall increase that the Company proposes to revenues in this proceeding and it is by far the largest division; thus, the benefits of adding its large customer base to the Consolidated Tariff Group provides an economies of scale benefit that allows the Company to spread out the recovery of costs of service to a larger group." He further stated, "Oak Run customers are going to experience a rate and revenue reduction whether it stands alone or whether it is consolidated with other divisions so this is a good time to include them in the Consolidated Tariff Group."

The Staff witness added, "Finally, Willowbrook and Ivanhoe customers would face only a slightly larger increase in their monthly bills in the Consolidated Tariff Group than if they stood alone, but [their] small customer base would benefit more from its costs being spread out over a larger group in the event it needs a major water system improvement in the future." (*Id*. at 8-9)

3. AG's Proposal

The AG recommends that the Commission "reject Aqua's consolidation proposal as not supported by the cost of service study, and as leading to disparate results and rate shock." According to the AG, the results of Aqua's COSS, as shown in a table on page 5 of the AG's in initial brief, "show that while Aqua's proposal for the consolidated water group reflects cost of service results, rates for the smallest divisions move them farther from cost of service and impose significant increases, undermining the value of gradualism." (AG IB at 4-5)

The AG proposes that "the Commission move more slowly and gradually to single tariff pricing in a manner that achieves the goals of single-tariff pricing and allows Aqua to recover its costs of service in a manner that is fair to all its customers." (AG IB at 17; see also *Id*. at 1, 4-8, 10-14)

AG witness Rubin proposed a more gradual consolidation that purportedly (1) captures economies of scale while not imposing unreasonable increases on other customers, (2) moderates the rate increases faced by consumers, and (3) recognizes the cost of service basis of rates.

Specifically, Mr. Rubin recommended two consolidations: (1) Ravenna, Hawthorn Woods and Vermillion, and (2) Ivanhoe and University Park. (AG IB at 12-13; AG Ex. 1.0 at 21; AG RB at 6-7)

According to the AG, the first consolidation would save the typical Ravenna customer more than $30 per month and the typical Hawthorn Woods customers more than $18 per month compared to stand-alone rates. The effect on Vermillion customers is less than $.75 per month. The second would save the typical Ivanhoe customer more than $14 per month, but cost University Park customers less than $0.80 per month.

In the AG's view, no further consolidation is appropriate at this time. (AG IB at 13; AG RB at 6-7) The AG states that Ravenna consumers, who would face an increase of more than 200% under Aqua's proposal, would see a more moderate but still substantial increase of 44.3% under Mr. Rubin's proposal. The rates for Willowbrook would increase by 44.71%, compared to the Company requested increase of 58.81%, and the rates for Fairhaven residential customers would increase by 30.2%, compared to the Company requested increase of 84.81%. (*Id*.; AG RB at 7)

According to the AG, Mr. Rubin's rate design proposal is rooted in cost of service principles, and a necessary sensitivity to rate impacts. Unlike Aqua's proposal, the AG argues, the AG's proposal incorporates the principles of gradualism and cost of service so that some customers do not "unfairly benefit" while other customers are "unfairly harmed." (*Id*. at 13-14)

4. Conclusion

Currently, each of Aqua's 10 water divisions has its own standalone rate structure and rates. Nine of those divisions, Oak Run, Ravenna, Hawthorn Woods, Willowbrook, Ivanhoe, Fairhaven, Candlewick, Vermilion and University Park, are part of this rate proceeding. The tenth, Kankakee, is not part of this proceeding.

As indicated above, Aqua, Staff and the AG have advanced separate proposals to combine some of the nine divisions into one or more consolidated rate divisions.

Aqua would combine them all into one rate division, except for the University Park division.

Staff would also exclude University Park from consolidation. Staff would combine Fairhaven and Candlewick into one consolidated division, and would combine the other six divisions into another consolidated division.

The AG would combine Ravenna, Hawthorn Woods and Vermillion into one consolidated division. The AG would also combine Ivanhoe and University Park into a second consolidated division, with the other four divisions remaining as standalone divisions.

Having reviewed the record, the Commission finds that of the three competing proposals in the record, the one offered by Staff, when coupled with the customer and usage charge "revenue splits" in Staff's rate design approach discussed below, appears to be more of a middle-ground recommendation that achieves the best balance, or reconciliation, of the competing objectives and tradeoffs identified by the parties.

In addition to providing increased efficiencies over the current standalone division approach, the Staff proposal would allow the recovery of costs to be spread over a larger customer base -- thereby benefiting customers in divisions that would face larger increases without consolidation -- while avoiding the most sizeable of increases that would occur if consolidation were to proceed at a faster and more comprehensive pace as proposed by Aqua. For those divisions that will pay more under Staff's consolidation proposal than if they continued to stand alone, the Staff proposal is designed to ensure that customers in those divisions "would face only a slightly larger increase in their monthly bills in the Consolidated Tariff Group than if they stood alone."

Not unexpectedly, the Staff proposal provides similar benefits in terms of cost of service, as the divisions that would be most impacted by Aqua's consolidation proposal are not included in the larger consolidation group in Staff's proposal.

Accordingly, the consolidation proposal advanced by Staff, including the customer and usage charge "revenue splits" incorporated therein, should be adopted.

C. Water Rate Design

1. Overview; Recommendations

As explained by Staff witness Mr. Boggs, the Company's present rate structure consists of a flat customer charge and a declining block usage charge, which are billed monthly. Specifically, these charges are the Customer Charge, which is a flat monthly amount, and a Usage Charge which is a charge per 1,000 gallons of water. (Staff Ex. 9.0R at 16-17)

He said the Customer Charge recovers a portion of the fixed costs to serve customers, which are the costs that do not vary with the amount of water consumed, while the Usage Charge recovers the costs that are variable. The fixed costs typically include costs for meter reading, billing, customer accounts, collection expenses, and maintenance and capital costs related to meters. (*Id*. at 17)

To develop water rates, Staff increased the Customer Charges in each of its proposed division groups using the "revenue split" approaches discussed below, and the application of AWWA meter factors which relates the flow for meters larger than 5/8" to that of the volume of flow for 5/8" meter. In other words, Mr. Boggs used "equivalent meter ratios" expressed in terms of the ratio of related meter capacity for each meter size relative to a 5/8" meter size. The remaining revenue requirement increase is recovered through the Usage Charge. (*Id*. at 18)

For the proposed Fairhaven-Candlewick group, Mr. Boggs used a revenue split approach of 45/55. This approach would recover 45% of tariffed revenues through the customer charge, to move toward cost, and 55% through the usage charge. (*Id*. at 12-16)

For Staff's six-division consolidation group and the University Park division he proposed a revenue split approach of 28/72, rather than 45/55, in order to "achieve the goal of rate gradualism," and avoid rate shock, in customer charge increases. (*Id*. at 15, 13) Mr. Boggs noted that some of these areas have residential meters larger that 5/8 inch, which means higher customer charges. (*Id*. at 15)

The proposed customer charges and usage charges proposed by Staff are shown on Staff Exhibit 9.0R, Schedules 9.1R-9.3R. (Staff Ex. 9.0R at 20)

If the Commission adopts a revenue requirement other than that proposed by Staff, Staff recommends that the water charges proposed by Staff, as shown on Schedules 9.1R through 9.3R, be adjusted "on an equal percentage basis" to recover the approved revenue requirement. (*Id*. at 21)

Except as otherwise determined in this Order, Staff's rate design recommendations are found to be reasonable and they are approved.

2. Rate Effects on Residential Customers with ¾ inch meters

In its initial brief, the AG states that in recent years, Aqua has been transitioning many of its residential customers from the standard 5/8" meters to the more expensive 3/4" meters. In some areas, such as Candlewick and Oak Run, the number of customers that Aqua has transitioned to the more expensive 3/4" meters is "very significant." (AG IB at 15-16)

In the Candlewick area, the AG calculates that an average 5,000 gallons per month ("GPM") customer with a 5/8" meter is facing a $13.22 monthly increase under Aqua's proposal, or a 35.84% increase (from $36.90 to $50.12). For a 5,000 GPM customer with a 3/4" meter, however, Aqua's proposed monthly increase is $18.37, or a 48.48% increase (from $37.90 to $56.27). (*Id*.)

The AG states that Aqua has offered no explanation for this "major shift" of residential customers from 5/8" meters to the more expensive 3/4" meters. Although the Candlewick Division presently charges only $1 more for the ¾" meter, and the Oak Run Division has the same meter charge for 5/8" and ¾" meters, the meter rate differentials recommended by Aqua are based on the AWWA meter ratios. As a result, there is a $6.15 differential between these meter sizes ($16.00 and $22.15). (AG IB at 16)

The AG concludes, in part, "In these two divisions [Candlewick and Oak Run], where there has been a large shift to the larger meters, the Commission should moderate the meter differential and phase in the AWWA meter ratios more gradually." (AG IB at 16)

In its reply brief, Staff addresses the AG's recommendation. Staff explains that it "recommends that increases to the Customer Charges in each of its proposed divisions be based on AWWA meter factors, where the allocation of costs among customer types be done through the application of meter factors." (Staff RB at 18) The application of meter factors relates the flow for meters larger than 5/8" to that of the volume of flow for 5/8" meter. In other words, Staff used "equivalent" meter ratios expressed in terms of the ratio of related meter capacity for each meter size relative to a 5/8" meter size. (Staff RB at 18-19; Staff Ex. 9.0R-C at 18) Staff states that this approach has been approved by the Commission in recent Utilities, Inc. rate cases in Docket Nos. 11-0059/11-0141/11-0142 (Cons.) and Docket No. 10-0280.

The AG's recommendation, summarized above, is based on the fact that "the Company has installed, without explanation, more expensive 3/4" residential meters in lieu of the more traditional 5/8" meters that utilities typically install for residential customers." (Staff RB at 19)

Staff recognizes that most residential customers currently have the same Customer Charges, no matter the meter size, in their respective divisions, and that those customers are not necessarily requesting larger meter sizes prior to the Company installing them. Consequently, Staff "does not object to the AG's recommendation to moderate the meter differential and more gradually phase in the AWWA meter ratios recommended by Staff." (Staff RB at 19)

In their reply briefs, no other parties responded to the AG's recommendation.

Having reviewed the positions of the parties, the Commission notes that the AG's proposal, to which Staff does not object, is intended to provide relief for those residential customers in the Candlewick and Oak Run areas who have been shifted to ¾-inch meters and would be subject to the customer charge applicable to that meter size once rates are approved in this proceeding.

The Commission also observes that these two divisions are in different consolidated rate groups in Staff's consolidation proposal.

In the Commission's view, although the workings of the AG proposal to "moderate the meter differential and phase in the AWWA meter ratios more gradually" are not clear, the Commission believes that some relief for these residential customers would be appropriate.

Accordingly, for those residential customers in the Candlewick and Oak Run divisions who have been placed on ¾-inch meters, Aqua shall offer the customers an opportunity to switch back to a 5/8-inch meter, and 5/8-inch meter customer charge, at no charge for making the switch, unless the 5/8-inch meter is not operationally feasible for that customer. For a customer who elects such a switch, Aqua will be permitted to leave the larger meter in place if Aqua chooses to do, but in that situation the customer will be charged the customer charge applicable to the 5/8-inch meter.

D. Large Industrial Customer Class; Viscofan

Viscofan, formerly Teepak, is Aqua's largest water customer, and the only customer taking service under its Large Industrial Customer class.

Viscofan is currently served at a discounted rate, that is, at a rate set at 49.7% of cost of service in Docket No. 04-0442.

Aqua proposes an increase in the tariff rate to Viscofan of 13.75%. (Aqua IB at 24) "Conversely, the AG suggests an increase of approximately 35.1% based on the Company's original revenue requirement proposal, while Viscofan proposes a maximum increase of 5%." (Aqua IB at 24)

1. Aqua Position

According to Aqua, the rate proposed by Aqua balances the interests of all parties. Aqua asserts, "The large industrial rate was designed to encourage large users like Viscofan to become and remain customers of Aqua. Although such customers may pay below the fully allocated cost of service, large industrial clients like Viscofan keep variable costs low and increase the recovery of fixed costs, thus lowering customer rates." (Aqua IB at 24) [other citations omitted]

Aqua adds, "Viscofan presented testimony that in the event rates increase too dramatically, it may leave Aqua's system and pursue construction of its own water facility. Thus, it is in the interests of Aqua and its other customer classes to retain Viscofan as a customer by moderating the rate increase for its customer class." (*Id*.)

2. Staff Position

Staff's rate proposal for the Large Industrial class is designed to recover revenues equal to 52.95% of Viscofan's cost of service, up from 49.7% approved in Docket No. 04-0442. (Staff IB at 38-39; Staff Ex. 9.0R-C at 35) Staff says this proposed increase would represent "a gradual increase in the percentage of the cost to serve this customer while slightly reducing the subsidy that other rate classes provide to Viscofan." (Staff IB at 39)

Staff's proposal also seeks to minimize any potential rate shock that could induce Viscofan to consider building its own water plant. (Staff IB at 38-39; Staff Ex. 9.0R-C at 35-38) Viscofan calculates that its rates would increase by 20% under Staff's proposal.

3. AG Position

The AG argues, "the subsidy requested for Viscofan should be conditioned on a long term agreement that recognizes the long term cost to Viscofan to self-supply water service."(AG IB at 9-10; AG RB at 8-9)

The AG complains that the testimony does not quantify the cost of the competitive option. In the AG's view, it is necessary for Aqua and the Commission to understand the estimated cost of self supply in order to fairly address the possibility of Viscofan leaving Aqua's system. (AG IB at 9-10)

The AG contends, "If Aqua is to offer service at a rate that is comparable to Viscofan's alternative supply, Aqua should require Viscofan to make a 10-year commitment to the supply of competitively priced water from Aqua. This provides stability and predictability to Viscofan, Aqua, and consumers who will not be faced with requests for escalating subsidies." (*Id*. at 10)

The Commission should require Aqua to enter into negotiations to limit consumers' exposure to increased rates due to the competitive options of one major customer, in the AG's view.

4. Viscofan Position

Viscofan recommends an increase of less than 5% for the Large General Service rate. In Viscofan's view, such an increase would provide the economic incentive needed for Viscofan to remain a customer on the Aqua system, allow Aqua to recover its variable costs of service, and contribute to Aqua's fixed cost recovery. (Viscofan IB at 1-2)

According to Viscofan, "The Large General Service rate was created to encourage large water users, like Viscofan, who are capable of obtaining their own water supply, to become or remain Aqua customers. The concept of the Large General Service rate remains the same today as when it was created. Aqua can supply service to Viscofan at a price that exceeds Aqua's variable costs of serving Viscofan, but is less than the cost of Viscofan's alternative." (Viscofan RB at 5, Viscofan IB at 2) [other citations omitted]

Viscofan "has considered constructing its own well water treatment plant and will construct such a plant if the rate charged is not conducive to staying on the Aqua system." (Viscofan IB at 2-3) Viscofan "already has easements for the construction of the pipeline needed from the wells to the well water treatment plant it has designed." (*Id*.) Should Viscofan choose to leave the system, "Aqua and its customers would be losing over $575,000 per year of Viscofan's contribution to fixed costs, thus exposing consumers to even higher rates." (Viscofan RB at 4; Viscofan Ex. 2.0 at 5)

Viscofan believes an increase of less than 5% would make it economically feasible to remain on the Aqua system while being fair to other customers who do benefit from having Viscofan on the system. (Viscofan RB at 5)

The Company, Staff and AG proposals for “substantial increases” to the Large General Service rate class should be rejected, in Viscofan’s view. Viscofan calculates that its rates would increase by 35.1% under the AG’s proposal. (Viscofan IB at 1)

Regarding the AG’s argument that Aqua should require Viscofan to make a 10-year contractual commitment, Viscofan responds that its current service is governed by a four-year water service agreement, filed pursuant to ICC-approved tariffs, that also contains minimum usage requirements. (Viscofan RB at 2-3)

5. Conclusion

Of the various proposals of record, summarized above, the Commission finds that the Staff recommendation strikes the best balance of interests and should be adopted.

Staff’s proposal continues to offer a significant discount to Viscofan -- in order to provide an incentive to remain on the Aqua system rather than pursuing a competitive alternative -- while slightly reducing the “subsidy” imposed on other customers by recovering revenues from Viscofan that are intended to equal 52.95% of Viscofan’s cost of service, up from 49.7% approved in Docket No. 04-0442.

As Viscofan, Aqua and Staff have asserted, retaining Viscofan as a customer provides benefits to other customers, because Viscofan provides a significant contribution toward costs that would otherwise be borne by other customers.

The Commission has also reviewed the positions of the parties regarding the length of the water service agreement with Viscofan. While agreeing with AG witness Mr. Rubin that some multi-year commitment is appropriate, the Commission believes that the record supports a continuation of the four-year term contained in the provisions of Aqua’s current tariffs.

E. Sales for Resale Class; Lake County

1. Positions of Parties

In its brief, Lake County states that it is a bulk water purchaser from Aqua, falling within the customer classification of “Sales for Resale” in Aqua’s proposed general rate increase, and that it purchases water in bulk from Aqua for certain subdivisions. (Lake County IB at 1)

Lake County identifies percentage increases in the rates it states are applicable to it, and Lake County takes issue with those proposed increases which it views as excessive. (Lake County IB at 2; see also Lake County 12/7/11 Response to Aqua Motion at 2)

Lake County contends that Aqua's COSS fails to fairly treat Sales for Resale customers, like Lake County, in its allocation to those who cause the costs to be incurred. (Lake County IB at 2-3)

Lake County argues that Aqua's water system incurs no costs or expenses for water distribution system maintenance, no billing and collection costs, and no "bad debt" costs or expenses imposed by Lake County. (*Id*. at 3-4) Lake County cites testimony by AG witness Mr. Rubin that bad debt expense should be allocated to each class except Sales for Resale. (*Id*. at 3-4; AG Ex. 1.0 at 14-15)

Lake County asserts that the COSS proffered by Aqua makes no allocation or adjustment for expenses not caused by the Sales for Resale customer class. (*Id*. at 5)

Lake County argues, "As suggested by Attorney General witness, Scott Rubin, to avoid any drastic increases, like that which would apply to the County, a limitation on any customer class increase of no more than 150% of the increase proposed overall for AQUA's system, should and must be applied. (See, AG Ex. 1.0, p. 16)" (Lake County IB at 6) Lake County argues, "Here, with the AQUA consolidated system-wide increase of 23.4%, adjusted by the 150% limitation, the County's rate increase ought not exceed 35.1%." (Lake County IB at 6)

Aqua argues that the Commission should reject Lake County's proposed changes to Aqua's Cost of Service Study. (Aqua RB at 23-24) Aqua claims Lake County's arguments are unfounded and should be rejected pursuant to Aqua's Motion to Strike filed November 29, 2011. Even if Lake County's Initial Brief is not stricken, the Commission should still reject Lake County's proposed Cost of Service ("COSS") adjustments, in Aqua's view.

Aqua argues, "Lake County appears to take issue with Aqua's calculation of the Sales for Resale customer class in its proposed COSS. Lake County's recommendations are unsupported by the evidentiary record, thus equating to little more than conjecture." Aqua adds, "Regardless, due to Lake County's failure to participate in this proceeding pursuant to the established procedural schedule, Lake County's arguments have not been subject to proper evidentiary safeguards, and Aqua has not had the opportunity to properly respond." (*Id*.)

Aqua contends that its proposed COSS, supported by Staff, is based on credible, well-vetted evidence and is therefore reasonable. As such, Aqua argues, the Commission should reject Lake County's recommendations and adopt Aqua's proposed COSS.

2. Conclusion

Having reviewed the filings, the Commission observes that the positions articulated in Lake County's brief rely extensively on factual information and non-legal opinions that are not in the evidentiary record in this proceeding. Even if such information were in the evidentiary record, the evidentiary record as a whole, which includes comprehensive cost of service analysis by Aqua, Commission Staff and AG witnesses on cost of service and related issues, would not support Lake County's recommendations.

With regard to Lake County's argument that any increase for Lake County should be limited to 35.1% based on AG witness Mr. Rubin's testimony that the increase for any class should not exceed 150% of the system-wide increase, a review of the record clearly indicates that Mr. Rubin's recommendation was intended to apply to each customer class as a whole, not for each customer in the class. (Tr. 136) Mr. Rubin explained, "The 150 percent limitation is based on the customer class as a whole. So it would be referring to all sales for resale customers. There may be individual customers within the class that would have increases above 150 percent of average and others who might have increases below 150 percent of average. So this limitation is just based or just applied to the entire customer class, not to individual customers or to individual rate elements within the class." (Tr. 136)

The Commission also notes that this recommendation by Mr. Rubin was not intended to indicate how costs of service should be allocated to customer classes; rather, it was made to moderate or "cap" the rate impacts that would be incurred by some customer classes if rates were set at cost of service. In any event, the increase for the sales for resale class that were proposed by Aqua (Aqua Ex. 12.0, Table 12) or Staff, or approved in this order, are below the cap described by Mr. Rubin and are also close to the calculated cost of serving that class.

With respect to Mr. Rubin's testimony on bad debt expense, cited by Lake County, the Commission notes that the amount allocated by Aqua to the Sales for Resale class for all divisions combined was $967, as indicated by Mr. Rubin. (AG Ex. 1.0 at 15; Tr. 134) Thus, even if Mr. Rubin's recommendation regarding bad debt expense were adopted, it would have little effect on the charges paid by any individual sale for resale customer, such as Lake County. The rest of Mr. Rubin's cost of service allocations, on the other hand, would assign substantially more costs to the Sales for Resale class than did the Aqua COS study. (AG Ex. 1.06)

The Commission concludes that except as otherwise determined in this Order, the cost of service, revenues and rate design proposed by Staff for the Sales for Resale class and the other customer classes are supported by the record and should be adopted. The revenues and rate design proposed by Staff for the Sales for Resale class are shown in Schedule 9.1R of Staff Exhibit 9.0R.

F. Public Fire Protection

For the Public Fire Protection class, Aqua proposes to set Public Fire Protection rates at 100% of the cost of service.

The Commission Staff position is that the Company's method and resulting rate design for recovering the Public Fire Protection cost of service are consistent with prior Commission decisions and should be approved. (Staff IB at 32-33; Ex. Staff Ex. 9.0R-C at 33-34)

The Commission finds that Aqua's this proposed method and rate design for recovering the Public Fire Protection costs are reasonable and should be approved.

G. Private Fire Protection

Staff states that Aqua is proposing to increase revenue recovery from the Private Fire Protection class by 100%. Such revenues will recover 55.12% of the cost to serve this class. (Staff IB at 33; Aqua Ex. 6.0 at 7; Aqua IB at 25)

In Staff's view, the proposal is a reasonable step closer to full cost recovery, which is the eventual goal for this service. (Staff Ex. 4.0 at 43)

The Commission finds that this proposal is a reasonable step toward full cost recovery from this class, and it should be approved.

H. Consolidation of Sewer Divisions and Rates

Currently, Aqua operates six sewer divisions known as Candlewick, Ellwood Greens, Hawthorn Woods, Ivanhoe, University Park Sewer and Willowbrook. Each has its own independent rate structure and rates designed "to produce revenues to sustain each individual division." (Staff Ex. 4.0 at 14) Aqua is proposing to combine all six divisions into one consolidated division, with one set of rates applicable to all divisions.

1. Aqua's Recommendation

Aqua argues, "In addition to the consolidation benefits previously mentioned, Aqua presented testimony that its proposed consolidation of its sewer divisions will not create significant rate shock to any of its operating divisions and will prevent the need for repetitive rate cases in the future that seek consolidation." (Aqua IB at 22-23; Aqua Ex. 12.0 at 12)

Aqua also put on evidence supporting a modified version of Staff's consolidation plan if the Commission rejects Aqua's preferred consolidation proposal in favor of a more gradual approach. (Aqua RB at 21-22)

2. Staff Position

Staff recommends that the Commission approve a Consolidated Sewer Division that only includes Candlewick, Hawthorn Woods, Ivanhoe and Willowbrook. Each of these four sewer divisions would experience smaller revenue increases and smaller monthly bills upon being consolidated than they would if each of these divisions remained on a standalone basis. (Staff IB at 37)

Staff recommends that the Ellwood Greens and University Park Divisions be excluded from the Consolidated Sewer Division. (Staff IB at 35-37) In Staff's view, Ellwood Greens and University Park should each remain on a standalone basis. (*Id*. at 37; Staff RB at 18)

It is noted that Staff's consolidation proposal incorporates the customer and usage charge "revenue splits" recommended by Staff, as discussed in more detail below under "Sewer Rate Design."

Staff "noted" that a 5,000 gallon/month Ellwood Greens waste water customer would see the percentage increase in the customer's monthly bill nearly double if Ellwood Greens were included in the Company's proposed consolidation. (*Id*. at 35-36; Staff RB at 17)

Regarding University Park, Staff states, "Table 9.6 in Staff Ex. 9.0R-C p. 22 and the Company's Schedule A-3 for University Park showed that University Park sewer customers would require a 19.92% increase in revenues at the Company's proposed rates if the division remained a stand alone and a 38.21% revenue increase if they were included in the Consolidated Sewer Division. Currently, University Park customers have a flat monthly Customer Charge ($45.55) and are not subject to a monthly Usage Charge…. Under the Company's proposed consolidation, University Park customers would be subject to both a monthly Customer Charge and a Usage Charge." (Staff IB at 36) Staff adds, "The Customer Charge for these customers would actually decrease by 26.5% ($45.55 to $36) based on the Company's proposed rates. However, the inclusion of a uniform Usage Charge would cause the overall bill of any customer using more than 2,000 gallons of waste water to exceed the current stand alone flat monthly Customer Charge." (*Id*. at 36-37)

In addition, Staff states, under the Company's consolidation proposal, a University Park residential customer that uses 5,000 gallons of waste water/month would have a monthly bill of $62.53. This would represent a 37% increase from the current monthly bill of $45.55. If University Park remained a standalone division, the same customer will experience a 20% increase in his/her monthly bill ($54.68 flat standalone rate vs. $45.55 current flat stand alone rate). (Staff Ex. 9.0R-C at 25) Therefore, Staff recommends leaving University Park Sewer as a standalone division. (Staff IB at 37)

3. Conclusion

Of the two competing proposals in the record, the one offered by Staff, including the customer and usage charge "revenue splits" incorporated therein, appears to achieve the better balance of competing objectives and tradeoffs.

In addition to providing increased efficiencies over the current standalone division approach, the Staff proposal would allow the recovery of costs to be spread over a larger customer base -- thereby benefiting customers in divisions that would face larger increases without consolidation -- while avoiding the most sizeable of increases that would occur if consolidation were to proceed at the faster and more comprehensive pace requested by Aqua.

I. Sewer Rate Design

As explained by Staff witness Mr. Boggs, Aqua's present rate structure consists of a flat customer charge for customers in the Ellwood Greens, Hawthorn Woods Candlewick and Willowbrook divisions, and for Candlewick residential customers. The Ivanhoe district currently bills on a flat usage basis with no monthly customer charge. The Candlewick division also has an Availability Charge for water availability service to customers who are not full-time residents of Candlewick. University Park Commercial customers are subject to both monthly Customer Charges and Usage Charges. (Staff Ex. 9.0R at 27)

Mr. Boggs said the Customer Charge for sewer, like the Customer Charge for water, recovers a portion of the fixed costs to serve customers, which are the costs that do not vary with the amount of water consumed. The fixed costs typically include costs for meter reading, billing, customer accounts, collection expenses, and maintenance and capital costs related to meters. (*Id*. at 27)

The Usage Charge recovers the costs that are variable based on usage and not recovered through the fixed charge.

In Staff's Consolidated Sewer Division proposal, applicable to Candlewick, Hawthorn Woods, Ivanhoe and Willowbrook, Mr. Boggs recommends recovering 45% of its revenues through the Customer Charge and 55% from the Usage Charge. This same approach is also used for the University Park Division which would remain a standalone division under Staff's recommendation. (*Id*. at 30)

For Ellwood Greens, which would remain a standalone division under Staff's recommendation, Staff favors retention of the current monthly flat rate structure. Mr. Boggs sees no clear value to changing its rate design for Ellwood Greens in this case if it is not to be consolidated with any other sewer division.

The proposed customer charges and usage charges proposed by Staff are shown in the schedules, 9.4R-9.6R, attached to Staff Exhibit 9.0R.

If the Commission adopts a revenue requirement other than that proposed by Staff, Staff recommends that the water charges proposed by Staff, as shown on Schedules 9.1R through 9.3R, be adjusted "on an equal percentage basis" to recover the approved revenue requirement. (*Id*. at 30)

Except as otherwise determined in this Order, Staff's rate design recommendations are found to be reasonable and they are approved.

J. Other Changes to Water and Sewer Tariffs

In response to Staff recommendations, Aqua proposed some minor changes to its Rules. Among other things, typographical changes were made to the text of the Rules; Original Sheet Numbers were assigned to all tariff sheets; and titles were updated on some of the tariff sheets. (Staff Ex. 5.0 at 11)

Staff witness Mr. Johnson stated, and the Commission agrees, that the proposed changes are minor typographical changes that promote clarity and do not change the substance of the Company's Rules, and therefore should be approved. (*Id*. at 12)

K. Public Comments on Rates and other Concerns

The rate increases proposed by Aqua were also addressed at the public forums held on December 15, 2011 and January 5, 2012, and in comments filed on e-Docket. Among those commenting on December 15, 2011 were several persons from the Ivanhoe and University Park divisions. The public forum on January 5, 2012 was held at Poplar Grove. It was very heavily attended; among the numerous speakers were water and sewer customers in the Candlewick division and other divisions. As of January 11, 2112 there were almost 150 public comments on e-Docket made by water and sewer customers from throughout the divisions in which Aqua seeks rate increases.

The speakers and commenters expressed many criticisms of and objections to the magnitude of the proposed increases, and resulting rate shock, especially in divisions where proposed consolidations would raise rates even more. The customers express their concerns and frustrations with the proposed rate increases which they regard as excessive, unreasonable and drastic. Many characterize the proposed increases as outrageous, greedy or unjustified, and some describe them as unaffordable, particularly for those on fixed incomes. Others complain that Aqua's rates are out of line with other utilities and neighboring municipal providers, and that Aqua's rates make homes difficult to sell. Some customers complain about water quality, and sewer service, and Aqua's responses to customers' reports of such problems.

The Commission appreciates the many comments provided in the public forums and on the e-Docket system, as well as the efforts made by those who prepared and presented them. These comments have been considered by the Commission in reaching its decisions in this Order, to the extent permitted by law. The Commission notes that many of the recommendations made by Staff and Intervenors have been adopted in this Order, thereby reducing the revenue increase or rate impacts proposed by Aqua.

VIII. FINDINGS AND ORDERING PARAGRAPHS

The Commission, having considered the entire record, is of the opinion and finds that:

(1) Aqua Illinois, Inc. provides water and sewer service to the public in portions of the State of Illinois and is a public utility as defined in Section 3-105 of the Public Utilities Act;

(2) the Commission has jurisdiction over the parties and the subject matter of this proceeding;

(3) the statements of fact set forth in the prefatory portion of this Order are supported by the record and are hereby adopted as findings of fact; the conclusions reached in the in the prefatory portion of this Order are supported by the record and are hereby adopted as findings;

(4) the test year in this proceeding is a future test year consisting of the 12 months ending December 31, 2012; this test year is appropriate for purposes of this proceeding;

(5) for purposes of this proceeding, Aqua's net original cost rate bases are set forth in the Appendices hereto;

(6) a just and reasonable rate of return which Aqua should be allowed an opportunity to earn on its net original cost rate base is 8.16%; this rate of return incorporates a rate of return on common equity of 9.49%;

(7) the rates of return set forth in Finding (6) hereinabove result in operating revenues and net annual operating income as shown in the Appendices hereto based on the test year herein approved;

(8) Aqua's rates which are presently in effect for water service and sewer service are insufficient to generate the operating income necessary to permit it the opportunity to earn a fair and reasonable return on net original cost rate base; the currently effective rates should be permanently canceled and annulled;

(9) the rates proposed by Aqua would produce a rate of return in excess of a return that is fair and reasonable; Aqua's Proposed Tariffs should be permanently canceled and annulled;

(10) Aqua should be authorized to place into effect tariff sheets designed to produce annual operating revenues as contained in Appendices A through F hereto, such tariff sheets to be applicable to service furnished on and

after their effective date; the terms and conditions in these tariff sheets should be consistent with Finding (11) below;

(11) the cost of service, interclass revenue allocation, rate design, and tariff terms and conditions found appropriate in the prefatory portion of this Order are just and reasonable for purposes of this proceeding and should be adopted; Aqua shall make all filings determined to be appropriate in the prefatory portion of this Order above;

(12) the new tariff sheets authorized to be filed by this Order shall reflect an effective date not less than five working days after the date of filing, with the tariff sheets to be corrected within that time period if necessary, except as is otherwise required by Section 9-201(b) of the Act as amended.

IT IS THEREFORE ORDERED by the Illinois Commerce Commission that the Proposed Tariffs proposing a general increase in rates, filed by Aqua Illinois, Inc. on April 6, 2011, are hereby permanently cancelled and annulled.

IT IS FURTHER ORDERED that Aqua Illinois, Inc. is authorized and directed to file new tariff sheets with supporting workpapers in accordance with Findings (10), (11), and (12) of, and other determinations in, this Order, applicable to service furnished on and after the effective date of said tariff sheets.

IT IS FURTHER ORDERED that upon the effective date of the new tariff sheets to be filed pursuant to this Order, the tariff sheets presently in effect for water and sewer service rendered by Aqua Illinois, Inc. which are replaced thereby are hereby permanently canceled and annulled.

IT IS FURTHER ORDERED that Aqua Illinois, Inc. shall make all filings found appropriate in the prefatory portion, and in the findings, of this Order.

IT IS FURTHER ORDERED that the motion for leave to file first amended petition to intervene filed by Lake County on December 6, 2011, which appears to be intended to circumvent previously issued procedural schedules and other rulings, is denied, provided that this action does not diminish or otherwise affect Lake County's rights as an Intervenor pursuant to the intervening petition filed August 25, 2011, when Lake County's participation as an intervenor began.

IT IS FURTHER ORDERED that subject to the provisions of Section 10-113 of the Public Utilities Act and 83 Ill. Adm. Code 200.880, this Order is final; it is not subject to the Administrative Review Law.

By proposed order of the Administrative Law Judge this 11th day of January, 2012.

Administrative Law Judge